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THE

UNITED STATES:

ITS

History, Physical and Political Geography,
Material Resources and Industrial
Development.

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Statistical Tables, Maps, Etc.

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BY

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UNITED STATES.

PART I.—HISTORY AND COLONIZATION.

I. DISCOVERY AND SETTLEMENT OF AMERICA.

Early voyages and discoveries

1. THE date on which America was first discovered by Europeans is a matter of uncertainty. The legends respecting the early voyages hither are numerous, but the most ancient of them are doubtless fictions. No account of the discoveries, previous to the time of Columbus, can be relied upon, excepting those made by the Icelanders, who, about the year 1000, attempted to colonize the country, but without any permanent success. It was not until the coming of Columbus, in 1492, that any benefit was derived by the old world from the discovery of the great continent of America.

The success of Columbus aroused the spirit of enterprise, and other voyages were made, notably those of the Cabots in 1497-98, Ponce de Leon in 1512, and Verrazzano in 1523, under the auspices of the English, Spanish and French governments, respectively. The Spaniards gave the name of "Florida" to North America, while the French called it "Canada or New France," and these two nations in some way conceived the idea that the whole country belonged to them.

Efforts to found colonies.

2. But the English had not forgotten that the Cabots, with English ships, had first reached the mainland of North America, and from this fact they laid claim to the northern part of that continent. Many unsuccessful attempts were made by Englishmen to found colonies. The first of these was Sir Humphrey Gilbert who made two efforts, one in 1578, and the other in 1583, without success, and lost his life in a storm while returning home. Sir Walter Raleigh, Gilbert's half-brother, obtained a patent from Queen Elizabeth, and in 1584 sent out two ships, commanded by Amidas and Barlow, to fix upon a place for a settlement. They explored the coast of what is now North Carolina. Struck with the beauty and fertility of the country, they gave a most flattering account of it on their return home, and Raleigh named it Virginia, in honor of the "virgin queen" Elizabeth. In the spring of 1585 he sent out a colony which settled on Roanoke Island, but it was starved out in the same year. Again, in 1587, Raleigh sent out another colony under White to the same place, but it entirely disappeared, and no trace of it could be found when White came back three years later. In 1602, Gosnold, with twenty colonists, took a short and direct route, and came upon the coast of Massachusetts. He wintered upon an island in the vicinity and then went back, taking the colonists, who refused to stay any longer, with him

The Plymouth and London companies.

3. In 1606, James I granted a charter to two companies formed in England. This charter gave them the whole continent of North America, from the thirty-fourth to the forty-fifth parallel of latitude. The one called the Plymouth Company was to take the northern half, and the other, the London company, the southern half, and their nearest settlements must be a hundred miles apart. Moreover, each colony was to be governed by a resident council appointed by the king, with power to choose one of their own number for president.

The Jamestown company.

4. The earliest attempts at colonization under the new English patent were made by the Plymouth company, but the expeditions which they sent out in 1606, 1607 and 1608, were unsuccessful, and it was left for the London company to found the first permanent English settlement in the new world. In 1606 this company sent out about a hundred men, mostly adventurers, in a fleet of three vessels commanded by Christopher Newport. Being driven by a storm into Chesapeake Bay, he found there a fine river which he named the James river, after the king, and choosing a low peninsula, he there planted the colony of Jamestown on May 13, 1607. But very soon the colonists became dissatisfied. Dissensions arose and Wingfield, president of the council, was deposed. They suffered from starvation, and had it not been for the indefatigable exertions of Captain John Smith, the settlement would have entirely broken up. The colonists experienced many vicissitudes, but after a few years they became prosperous and the permanent settlement of Virginia was established. In the meantime, the policy of the London company toward the settlers became more liberal, and a representative government was granted them in 1619, which was the beginning in America of government by the people. In the same year a Dutch vessel brought in some negroes who were purchased by the planters, and thus slavery was first introduced into the English colonies.

Plymouth colony.

5. The first settlers of Massachusetts were a band of Puritans, or Separatists, as they were called, because they had separated from the Church of England. Being driven from England, they sought refuge in Holland; but wishing to find a home in the new world for themselves and their children, they returned to England again, and from thence a band of 102 set sail in the Mayflower, and landed at Plymouth, in America, December 21, 1620. The little colony survived the rigors of a northern winter, the burden of poverty, and the lack of food, and became permanently established.

Massachusetts Bay colony.

6. In 1628 John Endicott, with a company, made a settlement at Salem, other towns, also, sprang up around it, and these were all united under a charter obtained from Charles I, with the name of the Massachusetts Bay colony. These two colonies, Plymouth and Massachusetts Bay, were for many years independent of one another; but were at last united in 1692, under the name of Massachusetts.

Maryland.

7. In 1624, the London company surrendered its charter to the king, who made a disposition of the territory which they had controlled, as he thought fit. A part of it was granted to Lord Baltimore in 1632, and received the name of Maryland. All the country between the English settlements of Virginia and the Spanish posts in Florida was called Carolina. This territory comprised the present states of North Carolina, South Carolina, Georgia, Alabama and part of Florida. In 1729 North and South Carolina were organized, and in 1732 Georgia was colonized by James Oglethorpe, and Savannah founded. Thus, out of the territory, originally granted to the London company, five colonies had been formed.

Carolina.

Georgia.

The other New England colonies

8. To the territory granted to the Plymouth company, the name New England had been given by Captain John Smith in 1614. The founding of the Plymouth and Massachusetts Bay colonies has already been mentioned. The greater number of the people who came from England in the great Puritan migration, settled in the latter colony. At the same time many found it expedient to seek other parts of New England. Now only did new-comers thus try new places, but the older settlements began to send out companies. In 1623 New Hampshire was first colonized under a grant to Captain John Mason and Sir Ferdinand Gorges. Connecticut and Rhode Island also became colonies, and were afterward chartered by the crown in 1662 and 1663. Thus, out of that part of the country originally granted to the Plymouth company, were formed the colonies of Massachusetts, Connecticut, New Hampshire and Rhode Island. Maine was considered a part of Massachusetts and was not counted as

New Hampshire.

Connecticut and Rhode Island.

a separate colony among those that finally combined to form the original thirteen states. The territory now occupied by Vermont was claimed in part by New York, in part by New Hampshire, and she did not become a separate state until after the revolutionary war.

9. As has been said, the charter granted to the London and Plymouth companies provided that their nearest settlements should be one hundred miles apart, thus leaving a strip of territory between the two main grants which was really neutral ground, and was never appropriated by either company. The Spaniards had confined their explorations to the south and made settlements there, but they claimed the whole continent north of them. The French had established themselves in the north, and held Canada and part of the northern states; they claimed everything south of them and called the whole New France. The English settlements were midway between the French and Spanish, and the English claimed everything from New England and Carolina westward to the Pacific, naming it all Virginia. Thus, so far, North America was divided between the three European powers, England, France and Spain.

The rise of the Dutch power.

10. A fourth power now appeared. In 1609, the Dutch East India company sent out Henry Hudson, an Englishman in their employ, in the ship named the "Half Moon" to make discoveries in America. He reached the continent and explored the coast as far south as Virginia, then turning to the north he entered the mouth of the river which bears his name, and sailed up the stream as far as the present city of Albany. Having completed his discovery he returned home. Upon the strength of Hudson's explorations, Holland laid claim to all the land along the great river, and called the whole territory New Netherlands. In 1621, the Dutch West India company was formed, and immediately received large grants of land on both sides of the Hudson extending from the Connecticut river on the north to the Delaware river on the south. Previous to this, however, a Dutch settlement had been founded in 1614, on Manhattan Island, the present site of New York City, which was afterwards called New Amsterdam.

The Dutch now began to establish settlements and trading posts in their possessions, which included that neutral territory lying between the original grants to the London and Plymouth companies. In 1638, Delaware was colonized by the Swedes, who founded a settlement on Delaware Bay, which was called New Sweden. But disputes about a territory arose between the Swedish and Dutch colonists, which led to a war between them, ending in the final surrender of New Sweden to the New Netherlands in 1655.

The Swedish colony.

End of the Dutch power.

11. But New Netherlands was soon destined to change hands. The introduction of a foreign element between the northern and southern portions of the English colonies had always been recognized as a source of trouble and danger, and in fact the Dutch settlers, occupying territory claimed by the English on both sides of them, were continually involved in disputes with their neighbors, especially with those of Connecticut. War having arisen between England & Holland, the English king, Charles II, determined to seize the Dutch possessions in North America; so in 1664 he granted the whole of their territory to his brother, the Duke of York. In the same year the duke sent out three vessels under the command of Colonel Nichols, who, upon arriving in the harbor of New Amsterdam, demanded a surrender of the territory to his English majesty. Governor Stuyvesant, being unprepared for defense, complied with the demand, and the whole country passed into the hands of the English. In honor of the duke, the name New Amsterdam was changed to New York, and the whole territory received the same name.

New York.

12. After the Duke of York had gained possession of the Dutch territory, he in turn sold the southern part of it to two English noblemen, Lord Berkely and Sir George Carteret. This tract, in compliment to Sir George, who had been governor of the island of Jersey, was called New Jersey. A liberal constitution was formed by the proprietors, and Philip Carteret appointed governor. The Dutch had several small trading stations in this territory at an earlier date, and the Quakers, having bought the rights of Lord Berkely, came soon afterwards. In 1676 a division was made, the Quakers taking West Jersey and Carteret retaining East Jersey, which became Puritan. In 1702 the colony was given up by the proprietors to Queen Anne in order that a royal governor might be appointed, and the two provinces were then made into one.

New Jersey.

13. The territory comprised within the limits of the state of Pennsylvania was granted in 1681, by Charles II to William Penn, son of Admiral Penn, in payment of an old debt due from the crown to the Penn family. In 1682, the present state of Delaware, then known as the "Territories," was added to his domain, and regarded as a part of Pennsylvania, but in 1703 it became a separate colony. Thus, the formation of the original thirteen colonies has been described. The London Company's territory furnished five, viz: Virginia, Maryland, North Carolina, South Carolina and Georgia. The Plymouth Company's grant, comprising New England, gave four, viz: Massachusetts, Connecticut, Rhode Island and New Hampshire. The neutral territory included between the original grants to the two companies furnished four, viz: New York, New Jersey, Pennsylvania and Delaware.

Pennsylvania.

Delaware.

The original thirteen colonies.

14. It is in vain to look for well balanced constitutions in the earlier periods of colonial history. England herself can scarcely boast of having a fixed constitution previous to the revolution in the year 1688, a period subsequent to the settlement of the colonies. The legal and constitutional history of the colonies, therefore, affords but little instruction. As has been shown, in less than eighty years from the first permanent English settlement in North America, the two original patents granted to the Plymouth and London companies were divided and subdivided into twelve distinct and unconnected provinces, and in fifty years more a thirteenth, Georgia, was added to the southern extreme of the previous establishments. To each of these, after various changes, there was ultimately granted a form of government resembling in its most essential parts, as far as local circumstances would permit, that which was established in the parent state. Without entering into details, it may be observed, in general, that agreeably to the spirit of the British constitution, ample provision was made for the liberty of the colonists. The colonial forms of government were, in the main, unhampered by the royal prerogatives. In some of the provinces the inhabitants chose their own governors and all other public officers, and their legislators were under little or no outside control. In others, the crown delegated most of its powers to particular persons, who were also invested with the property of the soil. To those colonies which were most immediately dependent upon the king were granted the same rights and privileges as their fellow subjects in the mother country.

The constitutions of the colonies

15. During the period of colonization, three forms of government were observable—proprietary, charter and royal. The proprietors of land grants offered liberal governmental privileges to those who were willing to settle on their lands, and thus several of the colonies became proprietary. These were Maryland, Carolina, Georgia, New York, New Hampshire, Pennsylvania (also including Delaware) and New Jersey. Some of the proprietors becoming tired of their grants, surrendered them to the crown, and the colonies, established in such territory, became royal provinces, over which the king appointed governors with the power of absolute veto on legislation. The colonies thus coming under the royal authority were, North Carolina, South

Forms of government.

Carolina, Georgia, New York, New Hampshire and New Jersey. Virginia became a royal province about 1620. Three colonies, only, remained proprietary down to the Revolution; these were Pennsylvania, Delaware (now a separate colony) and New Jersey. The colonies organized under a charter government were Massachusetts, Connecticut and Rhode Island. These charters were granted by royal authority, and gave the colonists the right of choosing their own officers, and making and enforcing their own laws as they thought best. Upon the accession of James II to the throne, he held that all the colonial lands in New England belonged to the crown. Accordingly he sent over Sir Edmund Andros, who was to revoke all the charters, and assume the governorship of the province of New England and New York. The charter of Massachusetts was annulled in 1684, but Connecticut and Rhode Island retained theirs in spite of the royal authority. In 1692, a new charter was granted to Massachusetts, but under its conditions she partly became a royal province.

Colonies under a charter government.

English policy toward the colonists.

16. For the first century and a half after the settlement of the colonies, England, in the main, exercised a wise and liberal policy toward them. She allowed them to govern themselves by such laws as their local legislatures thought necessary, and left their trade open to every individual in her dominions. She also gave them full permission to pursue their respective interests in such a manner as they thought proper, and reserved little for herself but the benefit of their trade, and that of a political union under the same head. This indulgence had a very marked effect upon the growth and prosperity of the colonies. They increased in wealth, numbers and resources with a rapidity never before equalled in ancient or modern history. They extended their settlements 1,500 miles along the sea coast, and 300 miles to the westward. In the short space of 150 years their numbers increased to three millions, and their commerce to such a degree as to be more than a third of that of Great Britain, although much restricted by the navigation laws imposed upon them by the mother country. The rapid increase in the population of the colonies was principally owing to internal causes. Though somewhat accelerated by the influx of strangers previous to 1630, yet, after that time, immigration formed but a small feature in peopling the country. The hardships of colonial life, which came to be better understood, and the constant struggles between the people and the home government respecting rights and privileges, served as a check to the advent of new comers. Hence the population of the colonies arose mainly from natural increase. In consequence of the equality of fortune and simplicity of manners which prevailed among them, their inhabitants multiplied far beyond the proportion of old nations, corrupted and weakened by the vices of wealth, above all, of vanity, than which, perhaps, there is no greater enemy to the increase of the human species.

Growth and prosperity of the colonies.

Causes of increase in population.

Social life and customs of New England.

17. In the settlement of a new country, many hardships and privations must of necessity be endured, and the American colonists experienced their share of them, more especially those of New England. In that section the climate was more rigorous than in the other parts of the country, and the cultivation of the soil more difficult. The habitations outside of the regular settlements were often far apart, so that intercommunication was infrequent. The dwellings of the settlers were of the ruder sort, being composed of logs, and so imperfectly constructed that they afforded a poor protection against the cold of a New England winter. While the colonists were poor there was necessarily great plainness of living among them. Luxuries were unknown to them, but there was an abundance of the coarser kinds of food. Pork and beans, boiled corn meal and milk, or pork and peas, formed the staple articles of diet. Bread was commonly made of "rye and Indian," and seldom of flour. Tea and coffee were not yet introduced, but home-made beer and cider were largely used. Being principally of Puritan stock, there were but few secular amusements among them. Dancing, and the theater, or anything approaching it, were forbidden, musical instruments were rare, and no one was allowed to own a set of dice or a pack of cards. In their desire to promote virtue, the Puritans, no doubt, were too austere in their mode of living, yet the standard of morality among them was certainly very high. In the southern colonies life was more easy, as a general thing. A large proportion of the settlers there were men of good family, attracted to the new world by a desire to make money and to enjoy personal freedom. Many of them secured patents for plantations of their own, instead of attempting to improve the lands in common, and brought out laborers to work them at their private expense. The soil was very productive, and the growth of tobacco, rice and indigo formed a great source of wealth, so that luxury abounded in that part of the country to a much greater extent than in any other. The existence of slavery among them caused a great deal of ignorance and idleness, as the wisest of them admitted; but there grew up an aristocratic class, among whom there were many men of high character and energy. The settlers in the region which now forms the middle states principally followed the occupation of farming, the soil and climate being well adapted for the growth of cereals.

Of the other colonies.

18. The religion of the colonists was chiefly Protestant. A majority of them, especially in the north, were of that class of men who, in England, were called dissenters. In New England they were largely Congregational. All the other leading denominations also had their representatives in different parts of the country. In the royal colonies there was a strong tendency towards the Church of England, which became the prevailing religion among them. In Virginia it was established by law. In fact nearly every colony at the outset attempted to establish some form of religious belief on a governmental foundation, and on account of this, as is well known, persecutions at the first arose. But the spirit of religious freedom predominated, and in general, men were left at liberty to worship God according to the dictates of their own consciences.

The religious condition.

Religious freedom.

19. The English colonists were, from their first settlement in America, devoted to liberty, according to English ideas and English principles. After a long struggle between the king and his parliament culminating in the English revolution, the following fundamental principles were settled: "That it was the undoubted right of English subjects, being freemen or freeholders, to give their property only by their own consent. That the House of Commons exercised the sole right of granting the money of the people of England, because that house alone represented them. That taxes were the free gifts of the people to their rulers. That the authority of sovereigns was to be exercised only for the good of their subjects. That it was the right of the people to meet together, and peaceably to consider their grievances, to petition for a redress of them, and finally, when intolerable grievances were unredressed, to seek relief, on the failure of petitions and remonstrances, by forcible means." Upon these fundamental principles thus established, the colonists took their stand, and all encroachments on their rights were met with a more determined spirit of opposition than would have been possible, had they emigrated from the mother country in the preceding century, when the doctrines of the divine right of kings and passive obedience to their will were generally accepted.

The spirit of liberty.

Rights of English subjects.

20. There were many causes favorable to liberty among the colonists. Their removal to so great a distance from the parent government greatly weakened their attachment to their sovereign, and with each succeeding generation that affection became still less marked, and at length was almost entirely lost. Their

Causes favorable to liberty.

religion also fostered a love of liberty. They were chiefly Protestants, and all Protestantism is founded on a strong claim to natural liberty and the right of private judgment. The state of society in the colonies was favorable to a spirit of liberty and independence. Their inhabitants, unaccustomed to the distinctions of rank which characterized European nations, were imbued with the idea that all men are by nature equal. All their impressions were calculated to inspire them with a belief that democratic forms of government were by for the best. With rank and titles they had nothing in common; kings, nobles and bishops were unknown to them. They could not easily be persuaded that their grants of land or their civil rights were the gifts of princes. Many of them had never heard of Magna Charta, and those who knew the circumstances of the remarkable period of English history when that great charter was obtained, did not rest their claims to liberty and property on the transactions of that important day. They looked to the Parent of the universe as the source of all their rights. Their political creed was short but sound. They believed that God made all mankind originally equal; that he endowed them with the rights of life, property and as much liberty as was consistent with the rights of others. That all government was a political institution between men naturally equal, not for the aggrandizement of one or a few, but for the general happiness of the whole community. Impressed with sentiments of this nature, they grew up, from the earliest infancy, with that confidence which is well calculated to inspire a love for freedom and a prepossession in favor of independence.

II.—THE CONTEST BETWEEN ENGLAND AND FRANCE.

France in America.

21. While the English were establishing their colonies along the Atlantic coast, and gradually working their way into the interior, the French were penetrating the continent by the way of the St. Lawrence, taking advantage of the discoveries made by Cartier, Champlain and others. The two great pioneers of French occupation were the fur trader and the missionary. It was about the time of the settlement of Massachusetts Bay that the Jesuit Fathers, who had already been laboring for many years among the Algonquins and Hurons of Canada and New York, began to push their explorations westward with renewed zeal and enterprise, accompanying, and often leading the Canadian fur traders on their long journeys. Among the soldiers, also, who came to New France, as the French possessions in America were called, were men who were intent upon enlarging their king's domains. Several of the Jesuits were martyred. Allouez made known the copper mines of Lake Superior. Dablon and Marquette founded Sault Ste. Marie, the first white settlement in the northwestern states. Marquette, accompanied by the trader Joliet, first reached the upper waters of the Mississippi in 1673.

Robert de la Salle.

22. One of the greatest of French explorers was Robert de la Salle, who came out to Canada to seek his fortune. A tract of land was granted him a few miles beyond Montreal, but he was bent upon new discoveries. He secured the aid of some rich men and of Count Frontenac, governor of Canada, and having built some vessels, he explored the upper lakes, made his way to the Illinois river, and erected a fort on the present site of Peoria. At last he made the great journey which he had for some time been planning. He set out from Fort Miami, on Lake Michigan, with a party of Frenchmen and Indians. He dragged his canoes from stream to stream until, after innumerable hardships and dangers, from which he never flinched, he launched them upon the waters of the Mississippi and floated down its current. He explored the great river to its mouth, and in 1682, took possession of the vast territory drained by it and its tributaries in the name of Louis XIV, king of France, and named it Louisiana after him. He then retraced his course and hastened back to France. The king fitted out an expedition for La Salle that he might establish a colony at the month of the Mississippi. The naval commander, Beaujeu, landed La Salle and his company at Matagorda bay, in Texas, which La Salle supposed at first was the mouth of the Mississippi. Then Beaujeu sailed back and left the colonists to their fate. They built a fort, and La Salle set out to find the Mississippi, but utterly failed. Dividing his men, he left one party in possession of the fort, and with the other endeavored to force his way to Canada, there to obtain relief. He never reached the end of his journey. After suffering terrible hardships, he was treacherously murdered (1687) by some of his own party when on his way. France sent out another expedition under D'Iberville, who (1702) founded Mobile. In 1718 the city of New Orleans was founded by the French Mississippi Company.

French military posts.

23. The French planted military posts at intervals along the great river, and settlements rose up about them. The French colonies and outposts also extended from New Brunswick and Nova Scotia, up the valley of the St. Lawrence, and through the region of the great lakes. Thus the English settlements became enclosed by a cordon of military posts, and at that time it seemed as though the whole continent were destined to become French rather than English. The French also had an advantage from the fact that they had secured the good will of most of the Indian tribes through their own prudent policy and the influence of their missionaries. The English settlers looked upon their French neighbors with jealousy and alarm, for they interfered with the extension of their settlements, especially in the north. In the southern colonies the inconvenience of the French occupancy was comparatively but little felt. Their social characteristics and the nature of their industry were not favorable to western migration, so, as there was nothing to tempt them away from their plantations into the wild interior they kept close to the seacoast. But in the north it was different. There the constant increase of commerce was followed by the increased wealth of the towns, and consequently the lands about them became more valuable. The great bulk of the emigrants who came over landed at the northern ports since trade was more active in the northern colonies. Many of these, being unable to purchase homes near the great centers of trade and the many flourishing settlements, or being impelled by a spirit of enterprise, went in search of new lands farther from the coast. Thus the northward and westward growth of New England and the English conquest of New Netherlands brought the two great rivals face to face.

King William's war.

24. The great struggle between France and England began in 1690. King James II had been dethroned (1688), and William of Orange placed upon the English throne. The French king, Louis XIV, espoused the cause of James, and a war followed, known as King William's War, in which the colonies became involved. Both the French and English colonists made use of Indian allies, and the warfare was marked by the most barbarous excesses. The Indians of Maine and New Hampshire were incited by French traders to attack the English towns. In 1689 Dover was burned. Casco was attacked, but the timely arrival of reinforcements from Msssachusetts saved it. All the settlements further east were broken up. In 1690 the war became more earnest. Three war parties of French and Indians were sent out by Count Frontenac from Montreal, Three Rivers and Quebec. The first surrounded the settlement of Schenectady in the night, and put it to the sword. The second destroyed Salmon Falls, New Hampshire, and then in conjunction with the third party, captured Casco.

The English colonies became aroused and determined to punish the invaders. An expedition fitted out under the united efforts of Massachusetts, Plymouth, Connecticut and New York was sent out under Fitz John

Winthrop, against Montreal. An attack made on the town was repulsed by Frontenac. In the meantime Sir William Phipps, with a fleet, sent out from Massachusetts, plundered Port Royal and other French settlements. Then, sailing up the St. Lawrence, he attempted to surprise Quebec. But Frontenac, having defeated the attack on Montreal, reached Quebec before him, and the enterprise failed. The war continued until 1697, when a treaty of peace was made between France and England. Both parties had suffered severely, and neither had gained any real advantage.

Queen Anne's war.

25. The truce between the two great rivals lasted about five years, when war again broke out between them (1702). At once the French and English in America fell to fighting, and the war that followed is called Queen Anne's War. During the five years of peace the French had continued to make settlements in the west. They never lost sight of the great idea which inflamed their ambition, which was to establish a great French-American empire. They had founded Detroit, Mobile and numerous villages on the Mississippi. In the east they had recovered all the places taken from them by the English in the last war, inaugurated new missions, and increased their influence over the Indians. At this time Spain was in alliance with France, and the English settlers found themselves opposed not only by the French in the north and west, but by the Spaniards of Florida in the south. The English colonists directed their first operations against the Spaniards. St. Augustine was captured (1702), but had to be abandoned. Three years later the Christian Indian settlements of middle Florida were destroyed by the English, and the missions entirely broken up.

The war in the north.

26. New England suffered greatly in this war. There was an atrocious massacre at Deerfield in 1704. Haverhill, which had not fully recovered from the massacre of 1697, was plundered and burned a second time, and many of the colonists killed (1708), and the whole of that part of the country was harassed by barbarous foes. Receiving but little help from England, the colonists for several years were unable to undertake any important expeditions. An attack on Charleston, S. C. (1706), by the French and Spaniards, was repulsed. Port Royal was again taken from the French (1710), and with it the most of Acadia, which now became known as Nova Scotia.

Expedition against Canada.

In 1711 an English fleet arrived in Boston to cooperate with the colonists in an attempt to conquer Canada, but all operations in that quarter proved a failure. In 1713 a treaty of peace was signed at Utrecht, by which the English acquired Newfoundland and Acadia. The eastern Indians were also induced to make peace about this time.

27. Many years of peace now followed, during which the colonies increased rapidly in population and advanced in material prosperity. The French still pursued their scheme of building up a great empire in the west. They controlled the valuable fur trade of the whole Mississippi valley. After their expulsion from Acadia they had crossed to the island of Cape Breton, and erected the strong fortress of Louisburg. At Niagara they had a fort commanding the communication between Lakes Erie and Ontario. Natchez was founded in 1716. In 1710 New Orleans was built, and soon became the capital of Louisiana. The French missionaries also continued their conquests in the wilderness of the Mississippi. After several years of peace, France again declared war against England (1744), and immediately began hostilities against the settlements. The campaign which followed is known as King George's war, because it occurred in the reign of George II.

King George's war.

28. The colonists determined to carry on the war by their own means without waiting the uncertain aid from England. An expedition was planned against Louisburg which was successful, and that strong fortress fell into the hands of the Americans (1745). This achievement of untrained soldiers was received with enthusiasm by the colonies, and with astonishment in Europe. The treaty of Aix-la-Chappelle (1748) put an end to the war; and greatly to the disgust of New England, Louisburg was restored to the French in exchange for Madras, in Hindustan, which France had taken from England.

29. The colonists had but a short time to reap the benefits of peace, after the treaty already referred to, when the sound of approaching war filled the land with anxiety and gloom. After an interval of about eight years, Great Britain formally declared war against France. The causes leading to this war, which was called the French and Indian war, were the alleged encroachments of the French on the frontiers of the colonies in America belonging to England. The French determined to connect their northern and southern possessions by a line of posts extending along the frontiers of the English possessions, from Lake Ontario to the Ohio, and down the Ohio and Mississippi to New Orleans. Up to the middle of the last century the English had not attempted to explore or settle the regions lying beyond the Blue Ridge and Alleghany mountains, but in 1749 a company of traders from London and Virginia, called the Ohio company, obtained a grant from the crown of 600,000 acres of land on the east bank of the Ohio river, in what is now West Virginia and Pennsylvania. In the years immediately following they made surveys and established a few settlements. One of the surveyors was George Washington.

Declaration of war.

The Ohio Company.

30. The French, regarding these operations of the Ohio Company as an encroachment upon their territory, strengthened the fort at Niagara, built another at Presque Isle (1753), now Erie, established Posts at La Bœuf and Venango (now Waterford and Franklin, in the oil region of northwestern Pennsylvania), seized the English traders, and confiscated their goods. When rumors came of what the French had done, Governor Dinwiddie of Virginia sent Washington, then not yet twenty-two years of age, to look into the matter, and expostulate with the French regarding their encroachments. After an arduous and perilous winter journey Washington brought back such a report of the determination and activity of the French, that the Virginia Assembly at once took measures to build a fort (1754) at the junction of the Monongahela and Alleghany rivers; but while the fort was being erected the French suddenly appeared, drove the English away, and finished for themselves the fort, which they called Fort Du Quesne.

Washington's mission.

31. In the meantime, a body of 400 men had been raised in Virginia and North Carolina, and sent out under Washington into the disputed territory. Meeting at Grand Meadows a French force which had been sent out to intercept him, he attacked and defeated them (1754). Learning of the approach of a greatly superior force of the enemy, he erected Fort Necessity. Here he was attacked by the French, and compelled to surrender, but on honorable terms. During this time, both the rival governments of France and England were making preparations for the coming struggle, though there was no formal declaration of war until 1756.

Washington's first skirmish.

32. In 1755 General Braddock, with a force of English and American troops, marched against Fort Du Quesne, but was defeated with great slaughter, and but for the skill displayed by Washington the whole army would have been annihilated. Braddock himself was mortally wounded, and died shortly afterwards. After his death, General Shirley took command, and made an attempt to reduce Fort Niagara, but accomplished nothing. General William Johnson was appointed to attack Crown Point. He defeated the French General Dieskau in the battle of Lake George (Sept. 5, 1755), but was unable to reach Crown

Braddock's defeat.

Point. In the same year all the French inhabitants of Acadia were banished.

French and Indian War.

33. In May, 1756, war was formally declared by Great Britain, and by France in the following month. Lord Loudou was appointed commander-in-chief of all the forces in America, but owing to necessary delay, General Abercrombie preceded him and took the command. The Marquis of Montcalm became the French commander. Abercrombie awaited the arrival of Loudon before attempting anything. Both officers proved inefficient, and by their delays allowed the French not only time to strengthen their posts, but also to attack those of the English.

Campaigns of 1756 and 1757.

34. In August, 1756, Montcalm captured Fort Ontario with a large number of military stores, guns, prisoners and vessels. In June, 1757, Lord Loudon organized an expedition against Louisburg, but abandoned the attempt on learning that the garrison at that place had been strongly reinforced by a French fleet. In the meantime, Montcalm, collecting his forces at Ticonderoga, marched against Fort William Henry, and compelled it to surrender. After the surrender, many of the garrison were massacred by the French Indian allies. Thus after four years' hostilities, the incompetency of the British commanders still gave the French the advantage. But a change in the British home policy changed the aspect of the war. The celebrated William Pitt was called to the ministry, and immediately began to act with vigor. Abler officers were appointed to command, and expeditions organized against different points. Louisburg was captured July 27, 1758. Fort Du Quesne also was taken, and its name changed to Fort Pitt. General Abercrombie's attack on Ticonderoga (July, 1758,) met with a bloody repulse, but Fort Frontenac was taken, with a large quantity of stores and goods.

The Conquest of Canada.

35. Pitt now determined to dispossess the French of the whole of their American territory. Their armies were directed at the same time against three of their strongest posts, Quebec, Ticonderoga and Montreal. General Amherst captured Ticonderoga July, 1759. Fort Niagara surrendered to Sir William Johnson July 25, 1759. But the most important feature of the campaign was the taking of the almost impregnable fortress of Quebec by the gallant Wolfe, who lost his life in the action. Soon after Montreal surrendered to Amherst. In this campaign the French were driven from all the important posts in Canada, and their power in America was broken forever. The war was virtually at an end, though peace was not restored until the signing of the Treaty of Paris, February, 1763. By this agreement, to which Spain and Portugal were also parties, France surrendered everything east of the Mississippi, except New Orleans, to England. New Orleans and that part of Louisiana beyond the Mississippi were ceded to Spain by the French. In exchange for Havana, which had been captured by the British, Spain yielded Florida to England. In 1800 Spain restored Louisiana to France, and Napoleon sold it to the United states in 1803.

The Treaty of Paris.

Pontiac's War.

36. When the treaty of peace was signed, it was trusted that there would be an end to those horrid ravages which had desolated the interior of the country. But the month of May, 1763, proved the fallacy of such hopes. The Indians did not wish to see the country transferred by the French to the English. It was one thing to have the French trading among them, another to have the hated English occupying their lands. It was about this time that the famous insurrection of the Indian tribes broke out. The Delawares and Shawnees and other of the tribes of the Ohio were foremost in this conspiracy. Pontiac, an Ottawa chief, was the prime mover and master spirit in this affair, and hence it is called Pontiac's war. Pontiac expected the French to join him, for they were secretly encouraging him. Most of the western tribes were drawn by him into the plot, but Sir William Johnson prevented a greater part of the Iroquois from joining him. Pontiac's plans were deeply laid, and conducted with Indian craft and secrecy. At a concerted time an attack was made upon all the posts from Detroit to Fort Pitt (formerly Fort Du Quesne). The Indians captured and destroyed eight of the twelve forts, but were unable to take the important posts of Detroit and Fort Pitt, though Pontiac besieged the former place for five months. The frontiers of Maryland, Virginia and Pennsylvania were laid waste, and terrible havoc wrought in the frontier settlements. The English, surprised by the first attack, soon roused themselves and met the danger promptly. The power of the tribes became broken, and most of them sued for peace. Pontiac retired to the Illinois country, and made a stand there for some time longer, finally submitting in 1766.

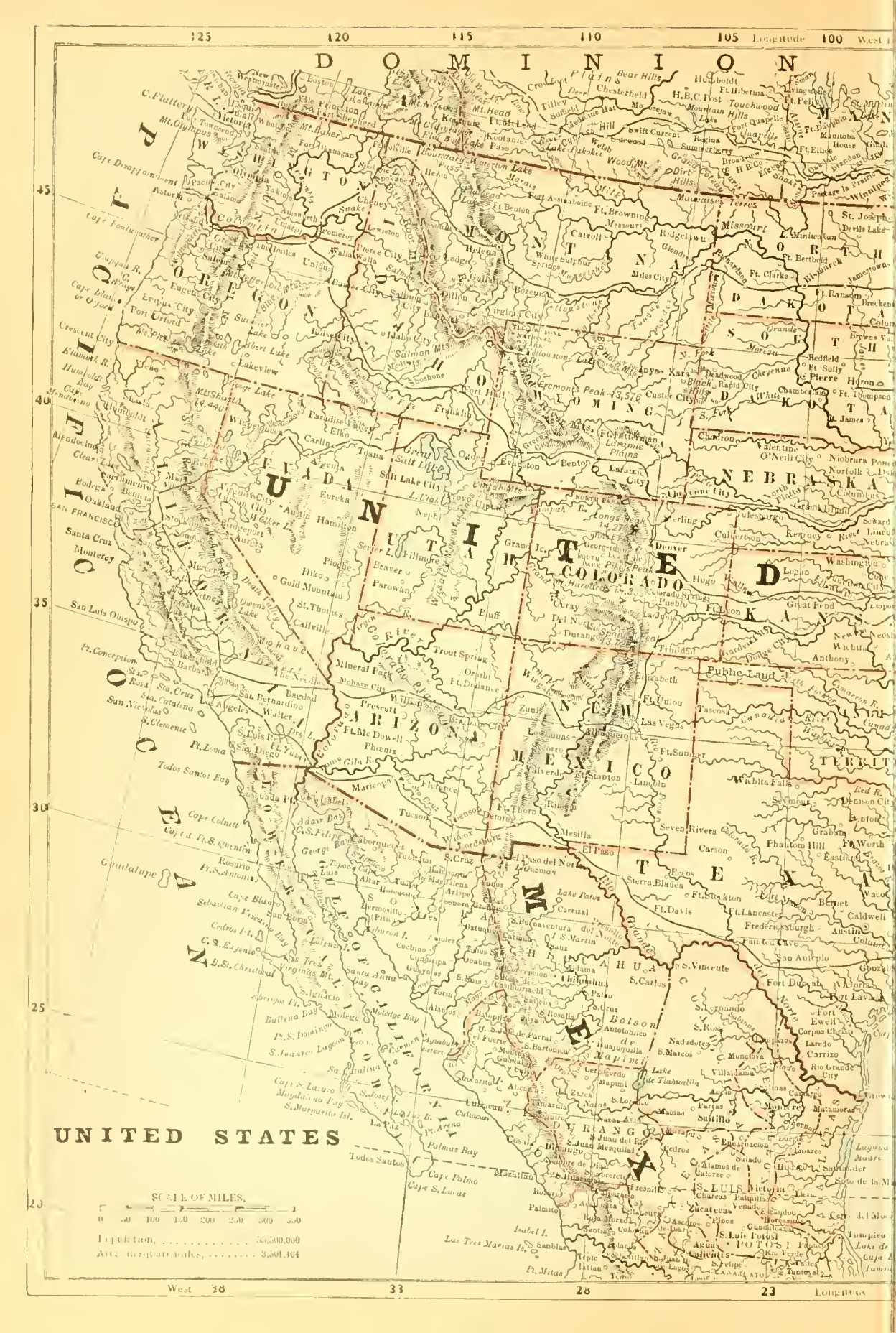
III. CAUSES OF THE AMERICAN REVOLUTION.

37. The addition to the British empire of new provinces, equal in extent to old kingdoms, not only excited the jealousy of European powers, but occasioned doubts in the minds of enlightened British politicians whether or not such immense acquisitions of territory would conduce to the benefit of the parent state. They saw, or thought they saw, the seeds of disunion planted in the too widely extended empire. To combine in one uniform system of government the extensive territory then under British sway, appeared to men of reflection a work of doubtful practicability; nor were their conjectures at fault. The seeds of discord were soon planted, and speedily grew up to the rending of the empire. The high notions of liberty and independence which were nurtured in the colonies by their local situation, and the state of society in the new world, were increased by the removal of hostile neighbors. The events of the war had also given them some experience in military operations, and confidence in their own ability. Foreseeing their future importance from the rapid increase of their numbers and extension of their community, and being extremely jealous of their rights, they readily admitted and indulged in sentiments and ideas which were favorable to independence. While combustible materials were daily collecting in the new world, a spark to kindle the whole was produced in the old.

Origin of the disputes.

38. In the first period of the settlement of English America, the mother country regarded the provinces as instruments of commerce. She contented herself with a monopoly of their trade without taking upon herself the care of their internal policy, or seeking a revenue from them. Previous to the close of the war in 1755, the catalogue of grievances she imposed upon the colonists was undoubtedly small. The following appear to have been the chief: An act of the British parliament forbidding the cutting down of pitch and tar trees, not being within a fence or enclosure, and sundry acts which operated against colonial manufactures. By one of these, it was made illegal after the 24th of June, 1750, to erect in the colonies any mill or other engine for slitting or rolling iron, or any plating forge, to work with a tilt hammer, or any furnace for making steel. By another, hatters were restrained from taking more than two apprentices at a time, or any for less than seven years. The colonists were also prohibited from transporting hats and home manufactured woolens from one province to another. These regulations were, for the most part, evaded; but if carried into execution, would have been but slightly inconvenient, and that only to a few. These restrictions, though seemingly a species of affront, and calculated to keep the colonists in a constant state of inferiority and subjection, would have been overlooked and forgotten had not other grievances been superadded.

39. The sad story of colonial oppression began in the



DOMINION
UNITED STATES
PACIFIC OCEAN
ATLANTIC OCEAN
WASHINGTON
OREGON
CALIFORNIA
NEVADA
IDAHO
MONTANA
WYOMING
UTAH
COLORADO
ARIZONA
NEW MEXICO
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
TEXAS
MEXICO
DURANGO
CHIHUAHUA
SOUTH CAROLINA
GULF OF CALIFORNIA
Longitude
West
SCALE OF MILES.
Population, 55,500,000
Area in square miles, 3,501,404

95 Greenwich 90 85 80 75 70 65
O F C A N A D A
Red House
Lake St. Joseph
Lake Winnipeg
Lake Superior
Lake Michigan
Lake Huron
Lake Ontario
Lake Erie
Lake Champlain
Lake George
Lake Woods
Thunder Bay
Michipicoten
Batchewana
Sault St. Marie
Manitoulin Isle
Penetanguishene
Nottawasaga Bay
Georgian Bay
Owen Sound
Goderich
Southampton
Collingwood
Toronto
Hamilton
Niagara
Kingston
Oswego
Rochester
Syracuse
Albany
Utica
Hudson
Troy
Schenectady
Saratoga
Whitehall
Lake Champlain
Montreal
Quebec
St. Lawrence
Three Rivers
Berthier
Chambly
Isle aux Noix
Lake St. Francis
Lake St. Louis
Lake St. Peter
Lake St. John
Lake Temiscamingue
Lake Nipissing
Lake Abbitibbi
Lake Mistassinnie
Lake Nepigon
Lake Superior
Lake Michipicoten
Lake Woods
Lake of the Woods
Lake Winnipeg
Lake Manitou
Lake Winnipegosis
Lake Athapuscow
Lake Slave
Lake Athabasca
Lake Dubawnt
Lake Winnipeg
Red River
Assiniboine
Saskatchewan
Churchill
Nelson
Hudson's Bay
Hudson's Straits
Labrador
Newfoundland
St. John's
Cape Race
Cape Ray
Cape Breton
Sydney
Halifax
Windsor
Annapolis
Digby
Yarmouth
Bay of Fundy
New Brunswick
Fredericton
St. John
St. Andrews
Passamaquoddy Bay
Eastport
Machias
Portland
Portsmouth
Boston
Cape Cod
Nantucket Isle
Martha's Vineyard
Newport
Long Isl.
Brooklyn
New York
Albany
Troy
Utica
Syracuse
Rochester
Buffalo
Niagara
Lake Ontario
Lake Erie
Lake Huron
Lake Michigan
Lake Superior
Chicago
Milwaukee
Green Bay
Michilimackinac
Detroit
Toledo
Cleveland
Pittsburgh
Erie
Philadelphia
Trenton
Atlantic City
C. May
Delaware Bay
Henlopen
Baltimore
Annapolis
Washington
Alexandria
Richmond
Norfolk
Hampton Roads
Chesapeake Bay
Albemarle Sound
Cape Hatteras
Pamlico Sound
C. Lookout
Bay
Wilmington
C. Fear
Charleston
Georgetown
Long Bay
Columbia
Augusta
Savannah
Darien
Brunswick
St. Augustine
Jacksonville
Matanzas Inlet
Cape Canaveral
Cape San Blas
Apalachicola
Mobile
Mobile Bay
Pensacola
Pensacola Bay
Cedar Keys
Tampa
Tampa Bay
Charlotte Harbour
Oyster Bay
Cape Romano
Cape Sable
Florida Bay
Dry Tortugas
Key West
Marquesas Keys
Cay Sal Bank
Nicholas Channel
Havana
Matanzas
Cardenas
Trinidad
Sabia Clara
Puerto Principe
Holguin
Baracoa
Bay de Nipe
Gt. Inagua
Little Inagua
Old Bahama Channel
Crooked I.
Acklin I.
Mariguana
Long I.
Exuma Sound
Great Bahama
Providence
Eleuthera
San Salvador or Cat Islands
Watlings Isl.
Rum Cay
Samana Cay
Caicos
Turks Islands
Bahama Channel N.E.
Gulf Stream
Florida Current
Atlantic Ocean
Gulf of Mexico
Mexico
Tropic of Cancer
Texas
Galveston
Mouths of the Mississippi
Louisiana
Arkansas
Tennessee
Kentucky
Ohio
Indiana
Illinois
Missouri
Wisconsin
Michigan
Virginia
North Carolina
South Carolina
Georgia
Alabama
Mississippi
Pennsylvania
New York
Maine
Vermont
New Hampshire
Massachusetts
Rhode Island
Connecticut
New Jersey
Delaware
Maryland
Indian Territory
Missouri Territory
Michigan Territory
Illinois Territory
Indiana Territory
Ohio
Kentucky
Tennessee
Mississippi Territory
Louisiana
Arkansas
Texas
Florida
Alabama
Georgia
South Carolina
North Carolina
Virginia
Pennsylvania
New York
Maine
Vermont
New Hampshire
Massachusetts
Rhode Island
Connecticut
New Jersey
Delaware
Maryland
30
25
20
18 West from Greenwich 13 8 3 2 East

Colonial oppression.

year 1764. Great Britain then adopted new regulations respecting her colonists, which, after disturbing the ancient harmony of the two countries for about twelve years, terminated in the dismemberment of the empires. These consisted in restricting their former commerce, but more especially in subjecting them to taxation by the British parliament. The imposition of duties, for the purpose of raising a revenue in America, was considered as a dangerous innovation, but the methods adopted for securing their collection were resented as arbitrary and unconstitutional. It was enacted by parliament, that whoever was caught violating the acts, should be tried in the courts of admiralty. Thus the defendant in such a case was deprived of the right of trial by jury, and subjected to the necessity of having his case decided upon by a single man, a creature of the crown, whose salary was to be paid out of forfeitures adjudged by himself. Moreover, the prosecuter was not called upon to prove his accusation, so the defendant was obliged, either to evince his innocence or to suffer. Thus the guards which the British constitution had placed around property and the barriers which the ancestors of both countries had erected against arbitrary power, were thrown down, as far as they concerned the colonists thus charged with violating the laws for raising a revenue in America.

40. After the peace of Paris, 1763, the national debt of Great Britain amounted to nearly 150,000,000 sterling. To aid in diminishing this heavy debt, the British minister conceived the idea of raising a substantial revenue in the British colonies, from taxes imposed by the parliament of the mother country. On the one hand it was urged that the late war had originated on account of the colonies—that it was reasonable, since it had terminated in a manner so favorable to their interests, that they should help to defray the expenses arising from it. Thus far both parties were agreed; but England contended that her parliament, as the supreme power, had the constitutional right to impose them on every part of the empire. This theory, plausible in itself, and in accordance with the letter of the British constitution, when all the dominions were represented in one assembly, was denied by the colonies as contrary to the spirit of the same government, when, on account of the extension of the empire, it was necessary to have many distinct representative assemblies. The colonists believed that the chief excellence of the British constitution consisted in the right of the subject to grant or withhold taxes, and in their having a share in enacting the laws by which they were to be bound. They conceived that the superiority of the British constitution to other forms of government was, not because of the parliament's forming the supreme council of the nation, but because the people had a share in it by appointing members who constituted one of its constituent branches, and without whose concurrence no law, binding on them, could be enacted. In the parent state it was asserted to be essential to the unity of the empire, that the British parliament should have the right of taxation over every part of the royal dominions. In the colonies it was believed that taxation and representation were inseparable, and that they, as colonies, could neither be free nor happy if their property could be taken from them without their consent. The American people reasoned thus: That if the British parliament, in which they had no representation, were able to take any part of their property from them by direct taxation, then they might take as much as they pleased, and there would be no security for anything that remained from further spoliation.

English Theory of Colonial Taxation.

The Colonial Theory of Taxation.

41. The colonists claimed that they had the exclusive right of laying taxes on themselves, free from extraneous influences, just as much as the British Parliament claimed the peculiar privilege of raising money independent of the crown. The parent state appeared to the colonists to stand in the same relation to their local legislators as the monarch of Great Britain to the British Parliament. His perogative is limited by that palladium of the people's liberty, the exclusive privilege of granting their own money. In fact, they claimed that though subjects of the King, they were not under the control of the British Parliament; that if the King required money of the colonies, he must obtain it through colonial legislation, just as in England he would obtain it through the British Parliament.

The dispute about the Charters.

42. The charters, which were supposed to contain the principles on which the colonies were founded, became the subject of serious investigation on both sides. One clause was found to run through the whole of them, except that which had been granted to William Penn. This was a declaration, "that the emigrants to America should enjoy the same privileges as if they had remained, or had been born, within the realm;" but such was the subtilty of disputants that both parties construed this general principle so as to favor their respective opinions. The American people contended, that as English freeholders could not be taxed but by representatives, in choosing whom they had a vote, neither could the colonists; but it was answered that if the colonists had remained in England they must have been bound to pay the taxes imposed by Parliament. It was therefore inferred that, though taxed by that authority, they lost none of the rights of native Englishmen residing at home. The advocates of the British policy could see nothing in charters but security against taxes by royal authority. The colonists, adhering to the spirit more than to the letter, looked upon their charters as a protection against all taxes not imposed by representatives of their own choice.

The connection between Great Britain and America.

The nature and extent of the connection between Great Britain and America was a great constitutional question, involving many interests and the general principles of civil liberty. It was a vain attempt to decide this by any other recourse to parchment authorities, made at a time long past, when neither the grantor nor grantees forsaw anything like the present state of the two countries. It needed great skill and tact to so manage affairs, that everything might redound to the satisfaction and good of all concerned; to strike the middle line which would have secured as much liberty to the colonies, and as great a degree of supremacy to the mother country as their common good required. But this skill was lacking in British statesmanship. On the one hand, the spirit of the British constitution was opposed to the idea that the British Parliament should exercise the same unlimited authority over the unrepresented colonies which it exercised over the inhabitants of Great Britain. The colonists, on the other hand, did not claim a total exemption from its authority, but allowed the mother country a certain undefined prerogative over them; and accepted the idea that Parliament had a right to make any acts binding them in many subjects of internal policy and regulating their trade. That nice point, which marked the end of parliamentary authority and the beginning of the colonial independence, was not ascertained. Had the question never been agitated, or had a satisfactory compromise been effected, the American Revolution, undoubtedly, would never have become a part of our history.

The Restrictive Policy of England.

43. The great French and Indian war, though crowned with success, had aroused a spirit of discontent in the colonies. From the beginning, as has been shown, the commercial policy of England toward the colonies had been wholly restricted. "It was a system of monopoly." Her navigation laws had closed their ports against foreign vessels; obliged them to export their productions only to countries belonging to the British crown; to import European goods solely from England, and in English ships; and had subjected the trade between the colonies to duties. All manufactures, too, in the

colonies, that might interfere with those of the mother country had been either totally prohibited, or subjected to intolerable restraints. The acts of Parliament, imposing these restrictions and prohibitions, had at various times caused great discontent and opposition on the part of the colonists, especially among those of New England. But nothing so aroused the jealous sensibilities of the colonists as any attempts on the part of the parent state to raise a revenue from them by taxation. They had ever maintained, from the earliest period of their establishment, that they could only be taxed by a legislature in which they were represented.

The Attempt to Collect Duties.

44. While the French war was in progress, many projects were hatched in England with regard to the colonies which were to be put in force when peace was declared. In 1760, an attempt was made in Boston to collect duties on foreign sugar and molasses imported into the colonies. Writs of assistance were applied for by custom-house officers, empowering them to break open stores, ships and private dwellings in search of goods that had paid no duty, and to compel others to assist them in carrying out their odious measures. The merchants opposed the writ on constitutional grounds. The question was brought into the courts, where James Otis argued so eloquently in favor of American rights, that all who heard him were ready to oppose all writs of assistance. John Adams, who was present, said, "Then and there was the first scene of opposition to the arbitrary claims of Great Britain. Then and there American Independence was born." In his speech, Otis used the words, "Taxation without representation is tyranny." This sentence became a watchword in America during the exciting times which followed.

The Stamp Act.

45. In 1765 Lord Grenville, having previously given notice of his intentions to the American agents in London, introduced into Parliament a long cherished scheme for the purpose of raising a revenue from the American colonies by means of a stamp duty. Petitions poured in against it from the Americans, and at first it met with strong opposition in the House of Commons. But the remonstrances of the colonies could not change the avaricious feelings of Parliament, and the bill passed by a large majority. Those short-sighted legislators did not foresee that in the passage of an act so odious to the colonies, they were awakening an opposition and spirit of independence among them which would materially weaken their own power. The night after the bill passed Benjamin Franklin, who was then in London, wrote to Mr. Charles Thomson, "The sun of liberty is set; you must light up the candles of industry and economy." Mr. Thomson answered, "I was apprehensive that other lights would be the consequence, and I foresee the opposition that will be made."

The Provisions of the Stamp Act.

46. By this act, no written instrument, such as commercial transactions, marriage licenses, deeds, suits at law, and the like, could be legal, unless stamped paper was used, which the colonists were compelled to purchase at an exorbitant price of the British agents. Moreover, it contained another startling provision, and that was, that the colonial legislatures were commanded to grant permission to billet the royal troops in America in inns, alehouses, barns, and vacant houses, and to furnish them with bedding, potables, candles, cooking utensils, etc. As soon as it became known that the Stamp Act was passed, the colonies, from one end of the land to the other, were full of indignation. Parliament had turned a deaf ear to their petitions, and showed by the passage of the Act a determination to treat them, not as English citizens, but as servants and slaves. Parliament, they said, might make laws to regulate the commerce of the empire, and so draw a revenue from America, but it had no right to levy a direct tax like this. Only the colonial government, elected by the people, could do such a thing. They must either surrender without a struggle their liberty, or oppose strongly and firmly the grasping avarice of a nation, the most powerful in the world.

The excitement produced by the passage of the Act.

47. They were not long in making up their decision and proclaiming it to the world. The legislature of Virginia was in session when the news arrived. Patrick Henry, then a young man, but possessed of brilliant talents, opposed it with all the energy of his great mind. He brought before the house five resolutions which were adopted, and which closed by declaring, "That any person, who, by speaking or acting, should assert or maintain that any class of men except the general assembly of the province, had a right to impose taxation, he should be considered an enemy to his majesty's colony." In advocating these resolutions, he boldly denounced the policy of the British government, and declared that the king had acted the part of the tyrant. Warming up with his subject, and alluding to the fate of other tyrants, he exclaimed with flashing eyes and in thunder tones, "Cæsar had his Brutus, Charles I his Cromwell, and George III"—"Treason! treason!" arose from every part of the house. Pausing a moment until the tumult had subsided, he added, "may profit by their example. If this is treason make the most of it." Similar sentiments flew like lightning through the other colonies. The tongues and pens of the citizens labored to kindle the latent sparks of patriotism. The press strongly opposed the innovation and called upon the citizens to resist it.

Patrick Henry.

48. The expediency of calling a continental congress, to be composed of deputies from each of the provinces, had early occurred to Massachusetts. So the assembly of that province fixed on New York as the place, and the second Tuesday of October, 1765, as the time for holding the congress, and invited all the other colonies to send delegates to the same. Nine colonies took part in it, and sent their most distinguished men. For the first time the whole country had a common cause, and there was need that the people should consult together. This congress drew up a declaration of their rights and a statement of their grievances. They asserted in strong terms their exemption from all taxes not imposed by their own representatives. They also concurred in a petition to the king, a memorial to the House of Lords, and a petition to the House of Commons. The colonies that were prevented from sending their delegates, forwarded petitions, similar to those which were adopted by the deputies who attended.

The Continental Congress.

49. On the 1st of November, the day on which the Stamp Act was to go into operation, the bells were tolled, and the flags hung at half mast, as if for the "funeral of liberty." The courts were closed; business was suspended. The houses of the British officials were attacked by mobs, and the effigies of the planners of the Act were carried about the streets in public derision and then burned, or torn in pieces by the enraged populace. In different parts of the country the stamp-masters were compelled to resign their offices to prevent being mobbed. The Stamp Act was so formed that the penalty of disobedience would be no less than the suspension of the whole machinery of the political and social order, and the creation of a state of anarchy. Neither trade nor navigation could proceed, no contract could be legally made, no process against an offender could be instituted, no student could receive a diploma, nor even could the estates of the dead be legally settled, or the marriage ceremony performed, until the stamp duty was paid. By degrees, however, things began to assume their usual course, and all kinds of business was transacted in open defiance of the Act.

Sons of Liberty.

50. Associations, under the title of the "Sons of Liberty," were formed in every part of the country. They denounced the Stamp Act as being an outrage on

the British constitution, and resolved that they would defend those who fell into the hands of British tyranny, on account of their clinging to their rights as freemen. Merchants resolved to import no more goods from Great Britain until the act was repealed, and the people generally denied themselves the use of foreign luxuries. No one would venture to carry the Stamp Act into execution; in fact, no stamped paper was to be seen; all had been either destroyed or concealed.

The Effect in England.

51. The information of the violent proceedings of the colonies was received in England with consternation. A small party in Parliament upheld the colonies. In the House of Commons William Pitt uttered the memorable words: "We are told that America is *obstinate*—America is in open rebellion. *Sir, I rejoice that America has resisted!* Three millions of people so dead to all the feelings of liberty as voluntarily to submit to be slaves would have been fit instruments to make slaves of all the rest." In the meantime Lord Grenville had been dismissed, and the Marquis of Rockingham, a friend of the Americans, appointed in his place. Under his administration the obnoxious Stamp Act was repealed March 18, 1766, for the English government saw that it was impossible to enforce it. At the same time, Parliament took care to say that it "had a right *to bind the colonies in all cases whatever*."

Repeal of the Stamp Act

How the News was Received.

52. The news of the repeal was received with the liveliest expressions of joy and gratitude. Public thanksgivings were held, English goods imported and a general calm succeeded the storm which had raged so violently. By the people of New England and New York less joy was felt. They feared, from the passage of the declaratory act, that this was only a truce in the war against American rights. In the mirror of the past they saw reflected the future, and trembled at the picture. Nor were their suspicions unfounded. Scarcely had the excitement over the Stamp Act died out, when other causes of complaint arose. In June, 1767, Charles Townsend, chancellor of the exchequer, brought into Parliament a bill imposing duties in the British colonies on glass, paper, painters' colors and tea, which became a law. Another law was also enacted, appointing officers of the navy as custom-house officers, to enforce the act of trade and navigation. Previous to this new act of tyranny, the legislative power of New York had been suspended, until it should furnish the king's troops with certain supplies at the expense of the colony.

A new Scheme of Taxation.

53. Early in 1768 the general court of Massachusetts sent a petition to the king, and addressed circular letters to the colonial assemblies, asking their co-operation in obtaining the redress of their grievances. The British ministry were alarmed and demanded of the court that they should rescind the vote directing circulars to be sent. The assembly refused, and the governor dissolved it. This attempt to intimidate only served to strengthen the opposition. Shortly after this Mr. Hancock's sloop Liberty was seized for not having entered all the wines brought from Madeira. This act of the custom-house officers was resented by the people. The houses of the officials were attacked, and they were compelled to seek safety in flight. The refractory spirit of the citizens of Boston had been displayed on so many occasions that General Gage was directed to station one or more regiments there to overawe the citizens and protect the officers in the discharge of their duties. Two regiments were accordingly ordered from Halifax, who took possession of the state house, and planted two pieces of cannon at the principal entrance. All this only tended to increase the general indignation.

The Seizure of Hancock's Sloop

54. Early in the year 1769 Parliament passed resolutions censuring the conduct of the citizens of Massachusetts, and directing the governor to make strict inquiries as to all treasons committed in that province since the year 1767, that the offenders might be sent to England for trial. The legislature of Virginia, on the receipt of that order, passed resolutions denying the right of the king to remove an offender out of the colony—away from his home and friends—for trial. The governor, on hearing of the resolutions, immediately dismissed the assembly. The members met at a private house, and entered into a written agreement not to import any of the taxed articles. Their example was extensively followed. The assemby of Massachusetts convened, but refused to proceed to business while armed troops surrounded the state house. The governor refused to remove them, and the assembly adjourned to Cambridge. Toward the close of the season the governor requested them to provide funds to pay for the quartering of the troops, but they refused, declaring that they would never make any provisions to support a standing army among them in times of peace. The governor, therefore, prorogued the assembly.

The Boston Massacre.

55. The presence of the soldiers in Boston was a constant cause of irritation, and the citizens had many quarrels with them. At length on March 5, 1770, a serious collision occurred between the troops and a mob, and the soldiers fired, killing five of the crowd, and mortally wounding two others. The reports of this Boston massacre, as it was called, were greatly exaggerated, and filled the country with excitement. The citizens assembled in crowds, and could only be dispersed by the governor promising them that justice should be done. The troops were removed from the city, and Captain Preston, who ordered the firing, and his men tried for murder. Although the excitement was intense, yet such was the love of justice that the soldiers, who were defended by John Adams and Josiah Quincy, were all acquitted except two, who were convicted of manslaughter.

Lord North's Bill.

56. In England, on the very day of the outrage in Boston, Lord North was called to the British Ministry. He introduced a bill into Parliament which passed on April 12, removing the duties that had been laid in 1767, excepting that on tea, but still declaring their right of taxing the colonies. For a long time no tea had been imported, and the effect had begun to be severely felt by the British merchants. By an act of Parliament, therefore, the East India company were allowed to import their teas into America free of duty in England. The naked question of the principle regarding taxation was thus presented. The scheme was an insidious one, but it failed most completely. Lord North supposed that by reducing the tax on tea to three pence a pound, the Americans would buy largely, thus relieving the East India company, who had large quantities of tea stored up in its English warehouses. Tea was accordingly shipped from England in great quantities to various parts of the colonies. This brought matters to a crisis. One sentiment prevailed throughout the whole continent. Taxation was to receive its final blow. Whoever submitted to it was an enemy to his country. From New York and Philadelphia the ships were sent back, with their cargoes, to London. In Charleston the tea was landed, but not permitted to be sold, and being stored in damp cellars, finally perished. Still more decisive action was taken in Boston. The ships anchored in the harbor. Some small parcels of tea were brought on shore, but the sale of them was prohibited. The captains of the vessels would have made sail back to England, but they could not obtain the consent of the consignees, a clearance at the custom house, or a passport from the Governor to clear the port. To settle the matter completely, a company of men disguised as Indians went on board the ships during the night and threw the cargoes into the water. Three hundred and forty-two chests were thus broken open and the contents thrown into the harbor (December 16, 1773).

Destruction of Tea at Boston.

57. When the news of this affair reached England,

The Boston Port Bill.

Parliament, in order to punish the inhabitants of Boston, passed the Boston Port Bill in 1774, which prevented the lading and unlading of goods, wares and merchandise in that town and harbor on and after June 1, 1774, and the seat of government was to be transferred to Salem. But the people of Salem refused to build their fortunes on the ruins of their countrymen, and the inhabitants of Marblehead generously offered the Boston people the use of their warehouses and harbor.

Other Tyrannical Bills.

In the following March, two other bills, equally tyrannical, passed both houses of Parliament. One subverted the whole constitution and charter of Massachusetts, taking all power out of the hands of the people and vesting it in the crown. The other authorized the governor to send any person indicted for murder or other capital offence committed in aiding the magistracy, to England or some other colony for trial.

Popular Agitation.

58. These laws, which were gross violations of the rights and charters of the colonies, excited the deepest indignation everywhere in America. The people of Boston, reduced to distress by the stoppage of their trade, were regarded as martyrs of liberty, and contributions were made for their relief, not only in the thirteen colonies, but even in London and Quebec. In Boston itself, although patriotic meetings were held almost daily in Faneuil Hall and the Old South Church, all disorderly and unconstitutional proceedings were avoided, so that nothing was done for which the British authorities could punish the people. The friends of the crown about this time became known as Tories, and the popular party as Whigs. The Quebec Act, which was passed among the other acts just mentioned, extended the boundaries of Canada over the whole territory situated north of the Ohio, and east of the Mississippi. This was done to prevent Canada from joining the rebellious colonies. The colonies warmly protested against this concession to liberty of conscience, for the Act sanctioned throughout the province the free exercise of the Roman Catholic religion, and confirmed to the clergy of that profession their accustomed dues and rights, thus practically establishing the Roman Catholic system in the new territory. To such freedom the colonists were on principle opposed at the time, though somewhat later they found it expedient to adopt nearly the same policy, and to promote a closer union among themselves by juster treatment of their Roman Catholic brethren.

59. Committees of correspondence had already been formed at the suggestion of Patrick Henry, Thomas Jefferson, Richard Henry Lee and other Virginians, and by this means the colonies took counsel together for the common defense. In May, 1774, proposals were made by the assemblies of several of the provinces for a general congress of delegates. The scheme was taken up with great enthusiasm, and on September 5, 1774, an assembly of fifty-five delegates, representing all the colonies except Georgia, met in Philadelphia, under the presidency of Peyton Randolph, of Virginia.

The old Continental Congress.

This was the first or, as it is often called, the "old" continental congress. The action of this body was still mainly deliberative. They passed a resolution highly commending the conduct of Massachusetts in the conflict with the wicked ministers, and exhorted all to press on in the cause of liberty. They drew up a bill of rights, entered into an agreement for themselves and for all their constituents to cease all importations from Great Britain, and adopted measures for organizing committees in every town and city to see that this agreement was enforced by every species of popular influence. They also voted an address to the king, one to the people of Great Britain and another to Canada. Their petition to the king entreated him, in eloquence the most affectionate and respectful, to restore to them their violated rights—their rights as English freemen. Provision was then made for another congress to meet in the following May, unless the grievances should meanwhile be redressed. When the proceedings of Congress were published in England, Pitt (now Lord Chatham) said: "For solidity of reason, force of sagacity and wisdom of conclusion under a complication of difficult circumstances no nation or body of men can stand in preference to the general congress at Philadelphia. The histories of Greece and Rome give us nothing equal to it, and all attempts to impose servitude upon such a mighty continental nation must be in vain."

Pitt's Opinion.

60. These resolutions of the Continental Congress aroused the indignation of the British government. America, they said, had long wished to become independent, and to prevent this was the duty of every Englishman, and that it must be done at every hazard. In the meantime, the situation of affairs in Massachusetts became alarming. The people collected arms, enrolled themselves into companies and prepared to turn out at a moment's notice, from which circumstance they were called "minute men." Public speakers and writers boldly defended the right of the people to withstand oppression. Royal officers were forced to resign. General Gage began to fortify Boston Neck, and the powder and other military stores in Cambridge and Charleston were, by his order, removed to Boston. He had about 4,000 troops under him, and sent home a request for 20,000 more. An assembly was called in Massachusetts, but dissolved by the governor. The members then met in Salem, appointed a committee of safety and sent messengers to New Hampshire, Rhode Island and Connecticut, asking for their assistance in raising an army of 20,000 men to act in any emergency. England, although she could distinctly see the upheaving of the violence of colonial indignation, shut her eyes to the sight. Chatham, Burke, Fox, Barré and other enlightened statesmen in Parliament urged the government to recede from its untenable position, but the obstinacy of the king prevented any conciliation; it was resolved that America was in rebellion and must be subdued; and so the revolution began.

The People Take Arms.

61. It was a fortunate circumstance for the colonies that the royal army was posted in New England. The people of that northern country have their passions more under the command of reason and interest than in a southern climate. One rash, offensive action against the royal forces at this early period, though successful, might have worked great mischief to the American cause. It would have lost them European friends and weakened the disposition of the other colonies to assist them. The patient and the politic New England men, fully sensible of their situation, submitted to many insults and restrained their feelings of resentment. In civil wars or revolutions it is a matter of much consequence who strikes the first blow. The compassion of the world is nearly always in favor of the attacked. For the space of nine months after the arrival of General Gage the behavior of the people of Boston is particularly worthy of imitation by those who wish to overturn established governments. They conducted their opposition with exquisite address. They avoided every kind of outrage and violence, preserved peace and good order among themselves, successfully engaged the other colonies to make common cause with them and counteracted General Gage so effectually as to prevent his doing anything for his royal master, while by patience and moderation they protected themselves from just censure. Though resolved to bear as long as prudence and policy dictated, they were all the time preparing for the last extremity by furnishing themselves with arms and training their militia.

Conduct of the People.

62. Provisions had also been collected and stored in different places, particularly at Concord, about twenty miles from Boston. General Gage sent out a detachment of 800 men, under the command of Colonel Smith and Major Pitcairn, to destroy these stores. Notwithstanding the precautions taken to prevent the

The Beginning of the Struggle.

spread of the intelligence, the march of the troops had been well made known by expresses and signal guns. Thus, when the British troops, early in the morning of the 14th of April, 1775, reached Lexington, two-thirds of the way to Concord, they found a small body of Americans, under Captain Parker, drawn up on the common to dispute the way. Captain Parker had given orders not to fire unless fired upon. The British troops rushed upon them, firing and calling upon them to disperse. Eight of the Americans were killed and and several more wounded. The little band of patriots slowly retreated, returning the fire as they went, and the British kept on to Concord, where they destroyed a few stores. At a bridge near the village they encountered 400 Americans, hastily collected from the neighboring towns, and were so warmly received that they began a hasty retreat. The militia pressed them on all sides; the retreat became a rout, and when the British were at last rescued by the arrival of Lord Percy with reinforcements, they had lost 273 men. They continued their retreat under Percy, bearing their dead and wounded with them. All the way, from behind stone walls, fences and farmhouses, the angry farmers galled them with shot. They did not desist until the troops had crossed Charlestown Neck and were safe under the guns of the British vessels.

Lexington and Concord.

63. As arms were to decide the controversy, it was another fortunate circumstance for the Americans that the first blood was drawn in New England. The inhabitants of that country were so connected with each other by descent, manners, religion, politics and a general equality, that the killing of a single individual interested the whole people and made them consider it a common cause. The blood of those who were killed at Lexington and Concord proved to be the firm cement of an extensive union. Intelligence of these events spread like wild fire throughout the country; the torch of war had been lighted, blood had been offered on the altar of liberty, fearfully was the death of those patriots slain at Lexington and Concord to be avenged. Couriers galloped in every direction, beating a drum, and shouting in tones that thrilled every listening ear, "To arms, to arms! liberty or death." The streets of Lexington and Concord had been soaked in blood, and the whole country was in a blaze of wrath. But amidst the intense excitement which prevailed, the still thoroughly English characteristics of the people manifested themselves. The provincial congress of Massachussets, which was in session at the time of the fight, dispatched an account of it to Great Britain, accompanied with many depositions to prove that the British were the aggressors. They also made an address to the people of Great Britain, in which, after complaining of their sufferings, they said: "These have not yet detached us from our royal sovereign; we profess to be dutiful and loyal subjects, and though hardly dealt with as we have been, are still ready with our lives and fortunes to defend his person, crown and dignity. Nevertheless, to the persecution and tyranny of his evil ministry, we will not tamely submit." From this commencement of hostilities, the dispute between Great Britain and the colonists took a new direction.

64. Up to this time no party in America had thought of a separation from the mother country, but now the colonists were aflame with the spirit of independence. Mechanics left their shops, and farmers the plow, and hurried to the scene of conflict. In the course of one or two days the king's army found itself besieged in Boston by an irregular and ill-furnished, but large and determined body of men who marched to the scene of action from all parts of New England. The provincial congress of Massachussetts came together under the presidency of Dr. Joseph Warren, voted to raise 13,000 men, and invited the other New England colonists to make up the army to 30,000. In a few days a line of encampment stretched from Roxbury to the river Mystic, and the British forces in Boston were environed by an army of 20,000 soldiers. Benedict Arnold gathered about him a band of volunteers, and rushed to Boston. Here he formed the bold plan of seizing the important fortresses of Ticonderoga and Crown Point.

The Gathering of Troops.

65. Having received instructions from the committee of safety to raise a sufficient number of men for the purpose, he marched to Bennington, where he found that Colonel Ethan Allen had collected a large band for the same object. They marched on together at the head of three hundred men, and reached Ticonderoga on the 10th of May, 1775. Advancing to the gateway, Arnold and Allen entering side by side, Allen rushed to the governor's room and demanded his surrender. "In whose name?" stammered the terrified governor. "In the name," said Allen, "of the Great Jehovah and the Continental Congress." This was high authority, and the governor immediately surrendered. They were equally successful in obtaining Crown Point. By this fortunate expedition they gained possession of two important fortresses, and gave the American troops about Boston a much needed supply of arms and ammunition.

Capture of Ticonderoga and Crown Point.

66. The second Continental Congress met at Philadelphia, May 10, the day of the capture of Ticonderoga. Peyton Randolph was at first the president, but John Hancock soon succeeded him in that position. Washington, Jefferson, Franklin, the Adamses, Patrick Henry and R. H. Lee, were members. The Congress was moderate, and asked only for a redress of grievances, not for independence; but it took active measures for carrying on the war. It formed a federal union, assumed the general authority of government, issued bills of credit to the amount of three millions of dollars for defraying the military expenses, and pledged the faith of the United Colonies for their redemption.

The Second Continental Congress.

IV. —THE WAR FOR INDEPENDENCE, 1775–83.

67. In May, 1775, the British army in Boston received reinforcements from England, under Generals Howe, Clinton and Burgoyne, which, together with the garrison, formed an army of more than twelve thousand men. The Americans comprised a number of independent commands under Generals Artemus Ward, of Massachussetts; Israel Putnam, of Connecticut; Nathanael Green, of Rhode Island, and other states, General Ward being recognized as chief. The whole number of men was about sixteen thousand. Upon the arrival of the English reinforcements, General Gage now proclaimed martial law throughout the state, offering pardon, however, to all rebels who would return to their allegiances, excepting Samuel Adams and John Hancock. The Americans, learning that General Gage was determined to penetrate into the country by the way of Charlestown Neck, issued orders to Colonel Prescott, on the evening of the 16th of June, to take one thousand men and form an intrenchment on Bunker's Hill, an eminence which commanded the neck of the Charlestown peninsula. By some mistake they went further on, and occupied Breed's Hill. At midnight those stern hearted men stood on the top while Putnam marked out the line of entrenchments. By daylight they had thrown up a redoubt eight rods square, in which they could shelter themselves. In the morning the English officers and the people of Boston could hardly believe their eyes as they saw this redoubt almost over their heads. The patriots on the hill were first seen from the ships, which immediately opened fire. All the artillery of the city and the floating battery were pointed against that single, silent structure. Still those hardy heroes toiled on amid the storm of shot and shell which fell among them, until by noon they had run a trench nearly down to the Mystic river on the north; then laying down their picks and shovels

they took up their muskets, and prepared themselves for the coming attack.

Battle of Bunker Hill.

68. The cannonading having failed to dislodge the Americans, about noon Gage sent a body of about three thousand men, under Howe and Pigot to carry the height by assault. Having crossed the Charles river from Boston in boats, they advanced up the hill under cover of fire from the ships and batteries. The provincials stood firm. "Don't one of you fire," was the command of Putnam, "till you see the whites of their eyes." The English advanced, stopping every few yards, to deliver their deep and regular volleys against the intrenchment; but not a shot replied. That silence was more awful than the thunder of cannon. When the hostile columns had almost reached the works, the stern order "*Fire!*" rang with starling clearness on the air. Suddenly a sheet of flame burst from that low, dark wall, and down went the enemy rank by rank. Their lines wavered, then broke, and the troops fell back in disorder to the landing place. There they rallied, and soon moved forward again to the charge, and again were driven back by the steady fire of the colonists. At this critical moment General Clinton arrived with reinforcements. By his exertions the troops were again rallied, and a third time advanced to the charge. Throwing aside their knapsacks and reserving their fire, the soldiers, with fixed bayonets, marched swiftly and steadily over the heaps of their fallen comrades, up to the intrenchments. Only one volley struck them, for the Americans had fired their last rounds of ammunition, and were without bayonets. Clubbing their muskets, they still beat back the enemy, until the order was given to retreat, when they retired slowly and made good their way over Charlestown Neck. At the beginning of the retreat the brave General Warren was killed. The Americans lost 449 in killed, wounded, and prisoners, while the British loss was nearly 1,500. The result of the battle was encouraging to the provincials. It give them confidence in themselves, and consequence in the eyes of their enemies. They had proved to themselves and others that they could measure weapons with the disciplined troops of Europe, and inflict the most harm in the conflict. This dear bought victory, won only through the exhaustion of the American's powder, was so little satisfactory to the British Government that General Gage was superseded by General Howe. This engagement, known as the battle of Bunker Hill, was the first real battle of the Revolutionary War.

Washington appointed Commander-in-Chief.

69. In the meantime, Congress on the 15th of June, at Philadelphia, elected George Washington, by a unanimous vote, to the high office of commander-in-chief of the united colonies. Washington, who was present, accepted the appointment, expressing a sense of the high honor which he had received, and the vast responsibity of the station. He refused to accept any compensation for his services, merely asking Congress to defray his expenses. Congress also adopted the unorganized force before Boston, naming it the Continental Army. In subordination to the commander-in-chief, Messrs. Ward, Charles Lee, Schuyler, and Putnam were appointed major-generals; Horatio Gates, adjutant-general, and Messrs. Pomeroy, Montgomery and Wooster, Heath, Thomas, Spencer, Sullivan and Greene, brigadier-generals. Soon after his election, General Washington, accompanied by Lee, proceeded to Cambridge to take command of the army, which amounted to about 14,000 men. He found them a crowd of brave, undisciplined soldiers, unprovided with arms, ammunition, and provisions. His first business was to organize them into an army, while he kept watch over the British in Boston.

Attack on Canada.

70. Meanwhile an expedition was organized for an attack on Canada, under the command of General Schuyler; but Schuyler, falling sick by the way, the command devolved on Richard Montgomery. This officer captured St. John's and Chambly, both on the Sorel river, and then made himself master of Montreal; but in making an assault on Quebec, December 31, 1775, he was repulsed, losing his own life, while Benedict Arnold, another leader, was wounded. Sometime afterward the British army in Canada was reinforced, and the Americans were obliged to abandon all designs in that quarter. While these events were taking place on the northern frontiers, English ships were laying waste towns and cities upon the Atlantic coast Bristol in Rhode Island, and Falmouth in Massachusetts, were burned because they had taken part in the rebellion. Congress thought it time to turn its attention to the construction of armed vessels. Thirteen were accordingly fitted out, a navy established, and a large number of privateers licensed, which scoured the seas and did great injury to the English commerce. General Washington employed in the service several cruisers to intercept the store ships of the enemy. Regular courts of admiralty were established for the adjudication of prizes, and by these timely measures much good was accomplished.

Privateers licensed.

In the South.

71. In the summer of 1775, Dunmore, the royal Governor of Virginia, was driven out of Williamsburg, then the capital of the colony, and obliged to seek safety on board a British man-of-war. Collecting some ships and a considerable number of men, partly slaves and indented servants, to whom he promised freedom, he burned Norfolk (January, 1776), which was the largest and richest town in Virginia, and made descents upon various parts of the coast. In North Carolina there was some sharp fighting between the Tory settlers and the patriotic militia, in which the Tories were worsted. In South Carolina, the gallant defense of Charleston (June, 1776,) where a British fleet, under Sir Peter Parker, aided by a large land force, under General Clinton, was beaten off with great loss by a small body of men commanded by Colonel Moultrie, filled the colonists with encouragement.

72. During the year 1775 the royal government was generally terminated throughout the country, the King's governors abdicating their posts and taking refuge on board the English shipping. An act was passed by the English Government prohibiting all trade and commerce with the rebellious provinces, and authorizing the capture of all American and other vessels found trading with the colonies, and the crews of the captured vessels were to be treated, not as prisoners, but as slaves. The colonists had sent over their last petition, styled the *Olive Branch*, to the King, but both houses of Parliament refused to hear it, alleging that they could not receive any proposition coming from an unlawful assembly. Until now they hoped for reconciliation with the mother country, but the rejection of this last petition determined the complete separation of Great Britain and the colonies.

Events of 1776.

73. At the beginning of 1776 Washington, by the help of Congress, had succeeded in getting into military order the army, which now ceased to be a collection of little colonial militia organizations. On the 2d of January he hoisted the Union flag in compliment of the United Colonies. This flag bore the strips which are found in the flag of today, but the crosses of St. George and St. Andrew were retained on a blue ground in the corner, blending the ideas of a new nationality and English supremacy. The present flag was adopted June, 14, 1777. Early in March, Washington was ready to drive the British out of Boston. On the night of the 4th he occupied and fortified Dorchester Heights, overlooking the harbor. General Howe, who succeeded George, saw that he must fight at a great disadvantage, or abandon the town. Thinking "discretion the better part of valor," he gathered together his forces, took to the fleet and sailed away. With him went those families which had remained loyal to the king. Thus Boston was relieved of the

Evacuation of Boston.

presence of the British, to the great joy of the inhabitants. There was now open war between the two countries. But after this New England scarcely knew the presence of soldiers, as it became the policy of England to strike at the heart of the colonies. Putting Boston in a state of defense, Washington now hastened to New York, where he was certain the next blow would be struck, and Lee was ordered to take command of the troops in the South. The fortifications which Lee had begun were hastily completed. Greene was placed in command of a division on Long Island. Measures were taken to disarm the Tory inhabitants, and the royal governor, Tryon, was driven to seek refuge on board a British man-of-war in the lower bay.

The Project of Seperation.

74. Even after the war had fairly begun, the colonies still looked forward to a reconciliation with the mother country and the first proposals of a separation were received with general disapproval. But the conflict of arms, and the obstinate refusals of all overtures on the part of Parliament, gave impulse to a bolder policy. All this time the Second Continental Congress was in session at Philadelphia, and it agreed to consider definitely the question of independence. Then it took a recess of four weeks, to give the delegates an opportunity to go back to the people and learn what was the general judgment. When the members returned to their seats there was no longer any doubt what course should be pursued. A committee had been appointed to propose a full declaration. The committee was elected by ballot, and consisted of Thomas Jefferson, John Adams, Benjamin Franklin, Roger Sherman, and Robert R. Livingston. Mr. Jefferson and Mr. Adams acted as a sub-committee to prepare the draft, and Mr. Jefferson drew up the paper. The chief merit of the document is his. Some changes were made in it, on the suggestion of other members of the committee, and by others in Congress while it was under discussion. On July 2, 1776, Congress adopted the resolution, "That these United Colonies are, and of right ought to be, free and independent states; that they are absolved from all allegiance to the British crown, and that all political connection between them and the State of Great Britain is, and ought to be, totally dissolved." Two days latter Congress adopted the declaration written by Jefferson. It declared what were the natural rights of all men; it recited the acts of George III, King of Great Britain, by which he had abused his authority over the colonies, and deprived them of their rights and liberties. It reminded the world how patiently the colonies had born their injuries; of the petitions they had addressed to the King, which had been disregarded; how the colonies had appealed, not to the King only, but to their brethren, the people of England, but that all had been in vain. Therefore, as the representatives of the *United States of America*, in general Congress assembled, the delegates published this declaration of the independence of the States. The declaration was received by the people with demonstrations of joy. Washington caused it to be read to his soldiers in New York on the 9th of July. On the same evening the excited inhabitants pulled down a leaden statue of George III on horseback, which stood on the Bowling Green, and it was melted into bullets for the use of the patriot army. In all the other parts of the country the joy was intense.

The Declaration of Independence.

The Effect of the Declaration.

The Effect in England.

75. The British ministry were confounded at what they called the daring enormity of the colonists, in spurning the royal power and authority. They were surprised that rebels dared to show such temper and spirit. Forthwith they determined by augmented forces to crush them at a blow, and to coerce them into a sense of duty and submission to their king. Doubting the competency of their own power to subjugate the colonies, the English Parliament, at an immense expense, resorted to the aid of foreign mercenaries to carry on their bloody work. 17,000 troops, hired from the German States, were conveyed hither to aid in the subjugation of the colonies.

The Attack on New York.

76. When the British had failed to get possession of South Carolina in the early summer of 1776, they turned their attention to New York. The American army was intrenched on Long Island and the heights overlooking New York when the British fleet entered the harbor and landed some of their troops on Staten Island. General Howe and his brother, Admiral Howe, had been appointed commissioners to receive the submission of any rebels who might throw themselves on the king's mercy. They had been instructed to propose conditions of peace, but they had no authority to grant independence, and Washington refused any other terms. On the 22d of August the British forces under Generals Clinton, Cornwallis, Porter and Grant, landed on the southern shore of Long Island. The larger part of the American army was posted in what is now the heart of Brooklyn. General Putnam was in command of Long Island, but his army was greatly inferior in numbers and equipments to the enemy. On the morning on August 27, Putnam was attacked by the British and compelled to retreat to Brooklyn. Had the British general followed up his advantage, he might have slain or captured all of Putnam's force. But at nightfall, under cover of the fog, Washington skillfully withdrew all the forces on the Brooklyn side and united them with the rest of his army in New York. He had completely foiled the enemy.

Evacuation of New York.

77. It was impossible to hold New York, because it could be shelled from Brooklyn Heights and attacked on both sides by the English fleet, so Washington withdrew his forces to Harlem Heights, and fortified himself there. The British then entered New York, and it remained in their hands until the close of the war.

The condition of the patriots was now deplorable. The army, greatly reduced by losses in battle, was still further weakened by desertions and insubordination. Thousands of disheartened soldiers went home. But Washington succeeded in partly establishing discipline, and opposed so bold a front to the enemy that Howe did not venture to attack him directly. Lord Cornwallis, however, succeeded in gaining a position on the opposite side of the Hudson. Washington was compelled to withdraw across the river, knowing that the enemy would aim for Philadelphia. The two armies crossed New Jersey in hot haste, Washington manoeuvering so as to defeat the British design of cutting him off from that city. The armies, while in motion, were often in sight of each other. Washington continued his retreat slowly, followed by the enemy, until early in December he crossed the Delaware river near Trenton. Howe now thought the campaign over, and went into winter quarters.

Operations in New Jersey.

78. The succession of disasters, beginning with th battle of Long Island, greatly discouraged the Americans. The legislatures of New Jersey and Pennsylvania adjourned and left the states almost without a government. Congress, fearing for its safety in Philadelphia, removed to Baltimore, leaving Washington with almost dictatorial powers. Apathy and disorder prevailed among the troops, many of whom had to march with bare, bleeding feet along the frozen roads. A great number of prominent persons, believing that the cause of independence was lost, hastened to make their peace with the British authorities. It was truly a time which "tried men's souls." Amidst the prevailing gloom, Washington stood firm. Strengthened by the arrival of Lee's division, now under command of Sullivan, since the capture of Lee by the British, Washington determined to strike a blow that would revive the drooping courage of the people. He resolved to fall upon a detachment of Hessian troops, stationed at Trenton under Rhal, and chose Christmas night for the attack. Recrossing the Delaware with 2,400 men, he attacked the town while the Hessians were carous

The Battle of Trenton.

ing, and completely routed them, taking one thousand prisoners.

79. This brilliant exploit had a wonderful effect upon the people. The soldiers who were about to return home consented to serve six months longer; Congress, which had exhibited great firmness during these times of trial, put forth fresh efforts to strengthen the army, and Washington, invested for six months with the authority of a dictator, crossed the Delaware again and occupied Trenton. Cornwallis now advanced toward that place with all his available forces, and Washington's danger was greater than before. But again his masterly genius prevailed. Leaving his camp fires burning, he abandoned his position, passed silently around the enemy, and at sunrise (January 3, 1777), fell upon the British reserves at Princeton, just as they were starting out to take part in the expected battle at Trenton, and routed them. Thus Howe, instead of occupying all New Jersey, was cooped up at Brunswick and Amboy, and Philadelphia was relieved of further danger from Cornwallis. After these splendid successes Washington retired with his army toward Morristown, which he made his headquarters, and arranged his troops in safe positions between that place and the highlands of the Hudson. Here he passed the winter, frequently making sudden and daring exploits, without risking a general engagement. By this means the enemy was compelled to abandon every post in New Jersey, except New Brunswick and Perth Amboy. Philadelphia being now in no danger from the British, Congress returned to that place.

The Battle of Princeton.

80. Aware of the importance of inducing the French to espouse the American cause, and relying on the enmity of France against Great Britain, Congress appointed as commissioners to the court of France, Benjamin Franklin, Silas Deane and Arthur Lee. They were instructed to procure arms and ammunition, and to obtain permission to fit out American vessels in the French ports, to annoy the commerce of England. They also directed them to solicit a loan of 10,000,000 francs, and to endeavor, by every means in their power to prevail on the French government to recognize the independence of the United States. The commissioners were kindly received and obtained the aid they requested, although the French government was not willing, as yet, to recognize the United States as an independent nation.

Commissioners sent to France.

81. Commissions were offered to French and other foreign officers who wished to serve in the American army, and a large number of ambitious soldiers consequently embarked for America. Washington was embarassed by the arrival of such a large number, not all of whom were men of merit. Among the foreigners, however, who thus gave their services to the American cause were several distinguished officers; Baron de Kalb, an Alsatian; Kosciusko and Pulaski, the famous Polish patriots; Baron Steuben, an experienced and accomplished Prussian soldier, and the young French Marquis de La Fayette, who purchased a ship with his own means and sailed for America to offer his sword, without pay, to the cause of independence.

Foreign Officers.

82. Near the end of May, 1777, the American army, numbering about 18,000 men, moved from its winter quarters at Morristown and took a position at Middlebrook, on which the British left their encampment, and General Howe endeavored to induce General Washington to meet him on equal ground. But Washington chose to continue his defensive warfare, and not to risk an open battle. Finding various feints and attempts ineffectual, Howe ordered a hasty retreat to Staten Island. He then embarked 16,000 troops, and leaving Sir Henry Clinton in command at New York, put to sea, keeping his destination secret. On the 20th of August, the fleet entered Chesapeake Bay, intending an attack on Philadelphia. Washington hurried to Philadelphia by forced marches, and on September 11, engaged Howe at Brandywine creek. After a hard-fought battle the Americans were forced to retreat. After some days occupied in maneuvering and skirmishing, on the morning of October 4 Washington made a sudden attack on Howe's position at Germantown. For a while the victory seemed in favor of the Americans, but, owing to a heavy fog, they became confused, and the British troops rallied and drove them back with heavy loss. After these battles the British became masters of Philadelphia, and Washington took up his winter quarters at Valley Forge, about twenty miles distant from that city.

Campaign of 1777.

The Battle of the Brandywine.

The Battle of Germantown.

83. While these events were occurring in the middle states, in July, 1777, Burgoyne, with an army of British, Hessians and Indians, entered the states from Canada, intending to seize the whole line of the Hudson river. While on his route he sent out detachments on both sides, one under St. Leger against Fort Schuyler, and another under Colonel Baum, to seize the American stores collected at Bennington. St. Leger's enterprise failed, and Baum was completely routed by the Green Mountain boys at Bennington (August 16). October 7, Burgoyne was defeated by the Americans under Gates, at Bemis Heights, and October 17 was compelled to surrender at Saratoga. The surrender of Burgoyne proved to be the turning point of the war. It gave artillery and arms to the American army, it encouraged the soldiers, and made a great impression in Europe.

Burgoyne's Invasion.

Surrender of Burgoyne.

84. In the meantime the winter was passing and bringing with it severe trials to the American army at Valley Forge. The men were without shoes, and the snow was stained with the marks of their bleeding feet. There was no money to pay them. The bills issued by Congress had become so depreciated as to be almost worthless. Food was so scarce that Washington was authorized to seize provisions wherever he could find them. About this time there was a plot to compel Washington to resign, and to have Lee or Gates put in his place. But the scheme failed, and Washington became more popular than ever. In the spring of 1778 the condition of affairs improved. Robert Morris, of Philadelphia, afforded relief to the treasury by raising large sums of money for the government, on his personal credit, and continued to serve the country in this way until the end of the war. When the news of Burgoyne's capture reached France, she instantly made a treaty of alliance with America (February 6, 1778), and sent out a fleet under Count d'Estaing to aid the colonies. The news of the treaty was received by the Americans with great joy. The British Government now sent over commissioners to offer terms of peace, giving the Americans all they asked for, except independence, but all propositions short of that were refused.

Operations of 1778.

The Prospect Fighters.

Treaty of Alliance with France.

85. General Howe was now instructed to concentrate all his forces in New York Consequently the British suddenly left Philadelphia, and set out on their march. Washington instantly left Valley Forge, and pursued the enemy with 12,000 men. He came up with them at Monmouth where a hotly contested, but indecisive, battle was fought. The enemy continued their retreat, and were enabled to gain New York. Having failed in their designs against New England and the Middle States, the British now transferred their operations to the South. An expedition was sent by sea and Savannah, Georgia, was taken at the end of the year 1778. Augusta was then occupied, and Georgia was practically in the hands of the British. Thus ended the campaign of 1778. General Lincoln received orders from Congress to take command of the southern forces, and the army under Washington retired to winter quarters near Middle Brook, New Jersey.

Battle of Monmouth.

The War in the South.

86. There were no great movements during 1779. Washington resolved to make the campaign a defensive one. General Clinton, who commanded at New York,

Campaign of 1779.

sent out an expedition which captured the half finished fort at Stony Point, situated on the west bank of the Hudson river. Washington determined upon its recapture, and upon the night of July 16, it was carried at the point of the bayonet by the troops under the gallant General Wayne, or "Mad Anthony Wayne" as he was called. In October, the Americans, aided by the French, made an attack on Savannah in order to wrest it from the British. At the end of five hours' hard fighting, in which the brave Pulaski was mortally wounded, the French refused to continue the attack longer, and sailed for the West Indies, whereupon the Americans retired to Charleston. This brought the southern campaign of 1779 to an end. This year was signalized by the victories achieved by the infant navy of America, under the command of the intrepid Paul Jones, who fought with the "Serapis" one of the most desperate naval battles on record (September 23).

Mad Anthony Wayne.

87. The seat of the war was now mainly in the South. The people there were nearly equally divided in allegiance. Savannah, the chief town of Georgia, was already in possession of the British, and in May Charleston was captured by them. The enemy had now a large army in the field in that quarter. At first it was opposed by no united American army. The patriotic planters gathered in companies, and rode here and there under the leadership of daring men like Marion and Sumter. They harassed the British wherever they could find convenient points of attack. Clinton, having gained possession of South Carolina, returned to New York, leaving Cornwallis in command. Meantime an American force under Baron De Kalb, had been sent by Washington to the South; but Congress interfered and put Gates in De Kalb's place. Gates, whose military capacity was much overrated, collected together about six thousand men, and marched hastily toward Camden, in the interior of South Carolina. Here he was met by the British under Cornwallis, who inflicted a disgraceful and disastrous defeat upon him (August 16, 1780). During the fight the heroic De Kalb lost his life. Gates fled to North Carolina, leaving his fugitive soldiers to take care of themselves. Soon afterward he was removed from command, and Greene appointed in his place. In September, 1780, Arnold's treachery against the government was discovered, and he was compelled to flee to the British lines. Major Andre, who had been arranging terms with Arnold, was captured on his return, tried as a spy, condemned, and executed October 2, 1780. Greene being now in command of the American troops in the South, showed at once the qualities of a good general. He secured additions to the weakened southern army, and began operations against Cornwallis. In December, 1780, Greene was at Charlotte, North Carolina, and Cornwallis was in South Carolina, moving northward. Greene divided his forces in two bodies. His plan was to get on each side of the British army, and while avoiding a general battle, to annoy the enemy continually. Although General Greene's men were scantily clad, half starved, and dispirited, destitute of arms and ammunition, the officers under his command were as brave men as ever followed a leader. Morgan, Lee, Marion, Sumter and Colonel Washington formed a group to which the British army could furnish no parallel. In the course of his movements, Cornwallis dispatched Tarleton against Morgan, who commanded one of the divisions of Greene's army. They met at Cowpens (January 17), and after one of the severest conflicts of the war, Tarleton was completely defeated, with the loss of the greater part of his force, and all his artillery and baggage.

Operations in the South.

Battle of Camden.

The Battle of Cowpens.

88. Morgan now hastened his march eastward to join Greene, and Cornwallis followed in hot pursuit. In order to move faster the British burned their stores and superfluous baggage, but Morgan succeeded in effecting a junction with Greene. Now followed a series of masterly movements by Greene, lasting through the winter, the spring, and the following summer. The hostile forces met at Guilford Court House (March 15, 1781). The battle was fought desperately for two hours, and all the advantages of a victory were on the side of the Americans. Notwithstanding Cornwallis claimed the victory, he retreated, closely pursued by Greene. Cornwallis avoided a battle and retreated to Wilmington, and from there proceeded to Petersburg, Virginia. Greene moved to South Carolina, where he had a fight at Hobkirk's Hill (April 25), with a force under Lord Rawdon, whom Cornwallis had left in command. Here Greene was compelled to retreat, but Rawdon's loss was so great that he soon after evacuated his main position at Camden. During April and May Greene swept through the country, carrying the British posts in succession, until the enemy were confined to three points, Ninety-six, Eutaw Springs and Charleston.

Guilford Court House.

89. Having rested his army, Greene marched against Eutaw Springs, where he found the British forces under Colonel Stuart (Rawdon having resigned and sailed for England) drawn up to receive him. A severe engagement took place (September 8, 1781), both sides claiming the victory. This was the last general action in South Carolina; the British, abandoning the open country, retired to Charleston. Cornwallis arrived in Virginia in May, 1781. Having received reinforcements, he fortified himself at Yorktown, on the south side of York river. Tarleton occupied Glouster Point, opposite Yorktown. The British force in Virginia at this time was about 8,000 men.

90. Meanwhile Washington, having been reinforced by a lately arrived body of 6,000 French troops, under Rochambeau, was threatening New York. About this time the French admiral, De Grasse, who had been engaged against the English in the West Indies, came north to co-operate a little while with Washington, and it was resolved, instead of carrying out on an attack upon New York, which had been planned, to strike a hard blow at Cornwallis in Virginia. The army of Rochambeau marched from Newport to meet Washington in the highlands. Their destination was kept secret, and the movements of both so artfully contrived that Clinton supposed they were going to attack New York. He did not discover their object until they had reached the Delaware. Sir Henry then sent out an expedition under Benedict Arnold to ravage Connecticut, hoping thereby to cause Washington to return, but this manœuver did not effect its object. Washington and Rochambeau pressed forward with the utmost alacrity. They received the gratifying intelligence that De Grasse had already arrived with his fleet and had blockaded the Chesapeake, thus cutting off the escape of the British by water. On September 30, 1781, the allies invested Yorktown and Glouster. After a siege of nearly three weeks, Cornwallis, finding it no longer possible to hold Yorktown, surrendered his whole army of nearly 8,000 men to Washington (October 19, 1781). On that day Clinton left New York to join Cornwallis. A week later, when off the Virginia capes, he heard of the news of the surrender. It was too late for him to be of any service, and he returned to New York.

Siege of Yorktown.

91. The surrender of Cornwallis sent a thrill of joy through the country, and was the most decisive event of the war. The territory of the thirteen states was now restored to the jurisdiction of Congress, and the contest decided in favor of America. The surrender of Cornwallis was accepted both by the Americans and the English in America as the end of the war. Congress recommended the states to observe a day of thanksgiving to God for the signal success of the American arms. The people waited impatiently for the two governments to agree upon terms of peace. There were after this a few encounters between the two armies, but

there was no general battle. The British still had possession of New York harbor and the surrounding country. General Washington went into camp with his army at Newburgh, on the Hudson. There he could keep open communication betweeen New England and the rest of the country. The French allies remained in Virginia. Generals Wayne and Greene drove such portions of the British forces as remained in the Carolinas and Georgia down to the sea-coast, and shut them up in Savannah and Charleston. There they were protected by their vessels. The people of Great Britain became clamorous for peace. The obstinate king was still resolved "never to consent to a peace at the expense of a separation from America, but a resolution in favor of peace, supported by the leading members, passed the House of Commons February 27, 1782. The king was compelled to dismiss Lord North and accept a ministry headed by the Marquis of Rockingham, who was committed to the policy of peace, and commissioners were appointed on both sides to negotiate a treaty, hostilities being stopped in the interval.

The Treaty of Peace.

92. Much firmness and wisdom were shown by Messrs. Jay, Franklin, Adams and Laurens, the American commissioners. Many questions were raised, an important one of which was that of boundary, England wishing to keep the Ohio valley and part of Maine. The property of the Tories had been confiscated; the English wished it restored. England tried to exclude New England from the right to fish off the banks of Newfoundland. These and other questions caused delay. The delay was increased by the efforts of France and Spain to postpone the final settlement until they should get all which they demanded as nations from Great Britain. The preliminary articles of peace were settled at Paris on the 30th of November, 1782, and in September, 1783, a formal treaty was signed. By this treaty Great Britain acknowledged the independence and sovereignty of the United States, and a new nation took its place among the governments of the earth.

The Army disbanded.

93. The American army was now disbanded. During the progress of negotiations the temper of the officers and soldiers was far from satisfactory. They had received but a small portion of their pay, had often suffered from absolute hunger, and were becoming restless under their wrongs and neglect. Some of them so far forgot themselves as to desire the establishment of a military despotism, and Washington received a letter in which he was advised to declare himself king —a proposition which he indignantly refused to entertain for a single moment. Then anonymous letters were circulated among the troops in March, 1783, tending to inflame their minds and advising them to organize for the purpose of enforcing Congress to grant their demands. To counteract this movement Washington called all the officers together, and in his subsequent farewell address soothed them by kind words and promises, and appealed to the nobler sentiments of the heart. Thus the danger was dispelled, and on November 3, still glowing with patriotism, the soldiers separated, resolved to endure all necessary privations. The army certainly had been treated badly by both Congress and the States, but there was some excuse for their conduct in that the country was very poor, and that, after spending nearly $100,000,000 during the war, the treasury found itself at the end about $40,000,000 in debt. This was exclusive of the outlay of the separate states, which amounted to $60,000,000 or $70,000,000 more.

Evacuation of New York.

On November 25 the British evacuated New York, and Washington's troops marched in by the way of King's Bridge. On November 2 Washington issued his farewell address to the army; on December 4, with a heart full of love and gratitude, he bade his officers adieu. It was a deeply affecting scene, and men, who had braved the horrors of many a battle, now, as they approached their beloved commander-in-chief, were melted to tears and incapable of utterance. Washington then proceeded to Annapolis, at that time the seat of Congress, and tendered his resignation as commander-in-chief of the armies of the United States, and immediately retired as a private citizen to his home at Mount Vernon, on the Potomac, in Virginia.

Washington's Resignation.

V.—THE FORMATION OF THE FEDERAL CONSTITUTION.

94. The States were governed during the latter part of the war by "Articles of Confederation," proposed by Congress at the time of the Declaration of Independence, but not adopted until several years later. Nearly all power was vested in the separate states; Congress had but little authority; there was no president or other executive chief. During the war for independence the army, which was called the Continental army, was under the authority of the Continental Congress, and it received its pay, when paid at all, in Continental currency. These two words "Continental Currency," were placed at the head of the paper money which Congress began to issue at the beginning of the war. No other way of raising money to meet the military expenses seemed clear to Congress than to issue this currency, since there would be no revenue from duties, as resolutions had been passed to have no trade with Great Britain. All the colonies represented in Congress agreed to redeem the bills which should be issued, just as each colony had been accustomed to redeem its own bills. At first the money was found to be very useful, and its value was not questioned, as nearly everyone thought that the war would soon be over. But the war dragged along; Congress had been obliged to issue bills to the amount of $20,000,000; whether or not the colonies would be able to win independence was a matter of doubt; the country was poor, and it was not certain that the Confederation would last. Under these circumstances people began to refuse to take the money at the value printed upon it.

Powers of Congress.

95. Under the "Articles of Confederation," adopted in 1777, the powers of Congress were but small. The colonies were jealous of each other, and especially the smaller of the larger, and so they all wished to give the "Confederation," as it was called, just as little power as they could. The new government was to be merely a "firm league of friendship" between sovereign states, which were to retain every power not "expressly" delegated to Congress. At this time Congress consisted of but one house, in which each state had an equal vote. There was no national executive head. Congress retained the power to borrow money, but was not authorized to raise money by taxes, or to fix the rate of duties on foreign goods imported, or compel obedience to any law. In fact, the provincial spirit which manifested itself in the several colonies, so prevailed over the spirit of nationality, as to completely take from it all power of action, even in the most violent emergencies, without the express consent of the several provinces. This was done by the celebrated "Articles of Confederation," by which Congress was reduced from a prompt and energetic exercise of power, assumed and used for the general good, to a mere advisory body, which, strictly speaking, had no authority at all; for the very first article, after that giving title to the instrument, made the following declaration: "Each state *retains* its sovereignty, freedom and independance, and every power, jurisdiction, and right which is not by this confederation *expressly delegated to the United States in Congress assembled.*" Thus Congress was bound, hand and foot, by the narrow-minded jealousy of the several states. Important measures required the votes of nine of the 13 states, and amendments the votes of all. Congress alone could decide upon the needed amount of money, but the power of collecting the taxes was vested in the states, only. Congress could decide disputes between the states, but it had no power to compel respect or obedience to its

decisions. It alone could make treaties with foreign nations, but no individual state was bound to respect those treaties, so far as Congress was concerned. Every state had the power of regulating its own commerce, both foreign and domestic. In truth, all the acts of Congress were simply recommendations to the state assemblies; and these recommendations were always largely debated, oftentimes rejected, and never assented to in season to have their best effect. Washington and the army and the Revolutionary cause were thus nearly sacrificed by a states-right prejudice, as bad in principle as it was slow and injurious in fact.

96. When Congress tried to borrow money in Europe, it succeded in getting some at high rates of interest. But in the present state of the country foreigners were slow to lend; they were not sure of getting their money back again. They knew they would not if the states failed in establishing their independence. And even if they did, the question was, would they pay if peace came? Under the then existing form of government it seemed doubtful. The several states could raise money to meet their obligations by taxing their citizens; they could also impose duties on articles of trade. The government, as vested in Congress, could do neither of these things; it could only apportion to the several states their share of the public expenses. If the states refused to pay, Congress had no power to compel them. Foreign countries, also, did not like to make treaties with such a loose and feeble government. Washington said: "We are one nation to-day, and 13 to-morrow: who will treat with us on these terms?" Thus, both Congress and the states struggled on, making more paper money and borrowing at high rates of interest. Laws were passed requiring the people to take the paper money in payment of debts. But the currency became more and more worthless, so that about the middle of the war, 16 hundred dollars of it was asked for a suit of clothes. After the alliance with France, the prospect brightened. People had more confidence in the success of the United States, and it became easier to borrow money in Europe. About this time, also, Robert Morris, of Philadelphia, who thoroughly understood the mistakes which had been made, was offered the position of superintendent of finance. He accepted the office only on condition that Congress should abandon the attempt to compel the people by law to take the paper money in payment of debts. In 1781 Congress passed a resolution that it would pay all its debts in solid coin, and recommended the states to do the same. It chartered the Bank of North America, and this bank lent money both to the government and to the people. At the close of the war the government found itself deeply in debt. Part of this money was due to foreigners, and part to the people of the country. How this debt was to be paid, was the question to be settled by the Confederation.

Robert Morris.

The Sale of Unoccupied Lands.

97. One way was through the sale of unoccupied lands. When the Confederation was forming there was much dispute and uncertainty about the western boundaries of the different colonies. Virginia, for example, claimed the country now occupied by Kentucky, Indiana, Ohio and Illinois. It was proposed that the states should give up their western lands to the United States. Virginia was the first to do this, and other states followed her example (1784). Congress used this property to pay the debts of the government. It gave lands to officers and soldiers in payment of their claims. Many of these moved out on their lands, and companies were formed for colonizing, especially in the Ohio valley. Congress could not go much farther. It could say what taxes ought to be laid, and could recommend a uniform rate of duties throughout the country; but it was obliged to ask the state to lay the taxes, to levy the duties, and then to pay the money raised into the treasury of Congress.

98. It perceived that this would never do—that a stronger form of government was necessary for the welfare and prosperity of the country. Disorders arose within the separate states, and a state of anarchy in general prevailed. The western counties of North Carolina undertook to form a state of their own, called Frankland. The part of Virginia which afterward became Kentucky, made a similar attempt. An extensive rebellion in Massachussetts, led by an ex-captain in the Continental army, named Daniel Shays (December, 1786), and directed against the collection of taxes, etc., for six months resisted the authority of the state. It was finally put down by a military force under General Lincoln. The one act of authority which Congress could exercise was in providing for the government of the country which had been ceded to it by the states. This led to the passage of the important ordinance in 1787. By this ordinance all the district northwest of the Ohio was formed into one territory. Congress appointed a governor, a council and judges. The people of the territory were allowed to choose their own assembly and make their own laws. The most important provision of the ordinance was that by which slavery was forever excluded from the northwest territory.

Shays' Rebellion.

Ordinance of 1787.

99. It was impossible for the country to go on as it was. The states were separating from one another, and from Congress. Congress could with difficulty bring enough members together to form a quorum. Scarcely any one outside paid attention to what it did. Least of all was it respected by foreign governments. John Adams, who had been sent as minister to England, could hardly get a hearing there. Many of the states refused or neglected to pay even their allotted shares of interest on the public debt, and Congress had not the power to compel payment. The national credit became worthless. Foreign nations refused to make commercial treaties with the United States, preferring rather to take advantage of the impotency of Congress, and lay any burden upon American commerce that they thought fit. In 1785, Algeria declared war against the United States. Having no efficient navy, Congress recommended the building of five ships of war, but as it had the power to recommend only, the ships were not built, and American commerce was left a prey to the Algerine pirates. Great Britain still refused to carry out the treaty of 1783, or send a minister to the United States. The federal government was despised abroad, and disobeyed at home.

Difficulties of the Country.

100. Amidst this discouraging and confused state of affairs, the more thoughtful of the people saw that some change in the form of government was necessary and so a convention of delegates was called to meet in Independence hall, Philadelphia, May 14, 1787, in order to decide upon a new constitution, and make, if possible, a stronger government, without doing harm to the liberties of the people. The states sent their ablest men to represent them. Many of the delegates had been members of the first Congress. Among others, Virginia sent Washington, Edmund Randolph, George Mason, Madison and George Wythe; New York, Hamilton; Massachusetts, Rufus King, Strong and Gerry; Pennsylvania, Franklin, Robert Morris, Gouverneur Morris and James Wilson; New Jersey, Paterson; Connecticut, Sherman, William S. Johnson and Ellsworth; and South Carolina, Rutledge and the two Pinckneys. Washington was appointed president of the convention.

Convention of 1787.

101. There was great difference of opinion among the delegates regarding the question at issue, but all agreed that it was necessary to give the government greater authority. After a long discussion, lasting many weeks, the convention drew up a constitution of the United States (September 17, 1787) which was to take the place of the articles of confederation. The convention reported its work to Congress, and Congress submitted it to the several states. By the terms of the constitution, it must be ratified by nine states before it could become the law of the land. Much opposition

The Constitution.

was manifested toward its adoption. It was discussed everywhere, and its every article was earnestly debated. Hamilton, Madison and John Jay of New York published a celebrated series of papers called The Federalist, in which they went over all its features with great thoroughness, showing the reasons for the action of the convention. By this means they did much to convince the people of the importance of the work done. Delaware was the first to ratify the constitution, which it did unanimously. Pennsylvania followed, ten days afterward, with a two-thirds vote in favor. Eight other states also ratified it, so that it went into effect in 1788. Of the three states which remained, New York accepted the constitution in time to take part in the first presidential election that same year. North Carolina accepted it during the year following; and Rhode Island, last of all, in the year after that (1790). Thus the old "Confederation" came to an end and the new "Union" began.

The Union.

102. The opening words of the constitution are as follows: "We, the people of the United States, in order to form a more perfect union, established justice, insure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this constitution for the United States of America." This first sentence of the constitution is often called the preamble, but no such term was applied to it by the framers of the constitution, neither is it found in the original manuscript. It is not a preamble in any sense, but is the enacting clause—an integral part of the constitution, stating that it was the people of the whole United States who established it. A preamble gives reasons why a resolution should be adopted or enacted, but it is no part of the resolution or enactment. The enacting clause, on the contrary, is mandatory. No other part of a statute is more important. Thus, this introductory sentence gives the authority and the ends for which the constitution was made. It was ordained by the people of the United States as a nation, and for the purposes so admirably set forth in its opening clause; and wherever in the constitution the words "United States" occur they signify the nation as a whole; wherever the word "States" occurs, it denotes the states considered separately, or as distinguished from the nation.

The Preamble.

Articles of the Constitution.

103. The constitution contains seven articles, which are subdivided into sections. Besides these seven articles, fifteen amendments have been made to the constitution, which are as binding as the original articles. By the first article all legislative power is vested in the Congress of the United States, which consists of a senate and house of representatives. Under the confederation the whole governmental authority was vested in Congress. There was no executive department and no judicial. The first resolution adopted in the constitutional convention stated that a national government ought to be formed, consisting of supreme legislative, executive and judicial departments. Most legislative bodies have two houses. This is true of all the existing state governments, and was true of all the states at the time the constitution was framed, except Pennsylvania and Georgia, which had but one each. The Continental Congress had but one house. While there is a general distribution of powers among the three great departments of government, the exercise of these powers is not absolutely exclusive.

The House of Representatives.

104. The federal house of representatives is descended, through the state houses of representatives, from the colonial assemblies. It is an assembly representing the whole population of the country as if the people were all in one great state. It is composed of members chosen every year by the people of the states. A candidate for election to the house must be at least twenty-five years old, must have been seven years a citizen of the United States, and must be an inhabitant of the state in which he is chosen. As the federal Congress is a taxing body, representatives and taxes are apportioned among the several states according to the same rule, that is, according to population. At this point a difficulty arose in the convention as to whether slaves should be counted as population. If they were to be counted, the power of the slave states in all matters of national legislation would be greatly increased. The difficulty was adjusted by a compromise measure according to which five slaves were to be reckoned as three persons. Since the abolition of slavery this provision has become obsolete, but until 1860 it was a very important factor in American history.

The Three Fifths Compromise.

105. In the federal house of representatives the great states, of course, have much more weight than the smaller ones. In 1790 the four largest states had 32 representatives, while the other nine had only 33. The largest state, Virginia, had ten representatives, to one from Delaware. These disparities have increased. In 1886, out of thirty-eight states, the nine largest had a majority of the house, and the largest state, New York, had 34 representatives to one from Delaware. This feature in the house of representatives caused the smaller states in the convention to oppose the whole scheme of constructing a new government. They were determined that all the states, both great and small, should have equal representation in Congress. Their prolonged opposition threatened to ruin the whole plan, when a method of compromise was fortunately discovered. It was intended that the national legislature, in imitation of the state legislatures, should have an upper house or senate, and at first the advocates of a strong national government proposed that the senate also should represent population. But it happened that in the state of Connecticut a unique governmental method had been adopted. There it had always been the custom to elect the governor and upper house by a majority vote of the whole people, while for each township there was an equality of representation in the lower house. The Connecticut delegates in the convention, therefore, being familiar with a legislature in which the two houses were elected on different principles, suggested a compromise. Let the house of representatives, they said, represent the people, and let the senate represent the states; let all the states, great and small, be equally represented in the senate. Such was the famous "Connecticut Compromise." Had this not been adopted the convention would doubtless have broken up without accomplishing its purpose. After it was accepted, and the jealous fears of the smaller states allayed, the work, yet to be accomplished, was comparatively easy.

The Connecticut Compromise.

106. Thus it came about that the upper house of the national legislature is composed of two senators from each state. As they represent the state, they are chosen by its legislature and not by the people. They are chosen for a term of six years, and one-third of the number of terms expire every second year, so that, while the whole senate may be renewed by the lapse of six years, there is never a "new senate." The senate has thus a continuous existence and a permanent organization, whereas each house of representatives expires at the end of a two-years' term, which is usually known as a "congress," and is succeeded by a "new house." A candidate for the senatorship must be at least thirty years of age, must have been nine years a citizen of the United States and must be an inhabitant of the state which he represents.

The Senate.

107. Congress must assemble at least once in every year, and the constitution appoints the first Monday in December for the time of meeting; but Congress can, if necessary, enact a law changing the time. The established custom is to hold the election for representatives upon the same day as the election for president—the Tuesday after the first Monday in November. As the period of the new administration does not begin until the fourth day of the following March, the new

Time of Assembling

house of representatives does not assemble until the December following that date, unless the new president should think it necessary to call an extra session of Congress at an earlier date. Each house is judge of the elections, qualifications and returns of its own members, determines its own rules of procedure and may punish its members for disorderly behavior, or by a two thirds vote expel a member. Absent members may be compelled under penalties to attend. Each house is required to keep a journal of its proceedings, and at proper intervals to publish it, except such parts as for reasons of public policy should be kept secret.

Privileges of members.

108. Senators and representatives receive a fixed salary by law, which is paid out of the public treasury. In all cases, except treason or felony or breach of the peace, they are privileged from arrest during their attendance in Congress, as also while on their way to it and while returning home; "and for any speech or debate in either house they shall not be questioned in any other place." During the session of Congress neither house may, without the consent of the other, adjourn for more than three days, or to any other place than that in which Congress is sitting. No person can at the same time hold any civil office under the United States government and be a member of either house of Congress.

Presiding officers.

109. The vice-president is the presiding officer in the senate, with power to vote only in case of a tie. The house of representatives elects its presiding officer, who is called the Speaker. In the early history of the House of Commons, in England, its presiding officer was naturally enough its *spokesman*. He could speak for it in addressing the crown. Instances of this kind occurred during the fourteenth century, until in 1376 the title of Speaker was definitely given to Sir Thomas Hungerford, and from that date the title has always held. The same title was given to the presiding officers of the American colonial assemblies, and thence it passed on to the state and federal legislatures. The Speaker presides over the debates, puts the questions and decides points of order. He also appoints the committees of the house of representatives.

Power of impeachment.

110. The house of representatives has the sole power of impeachment, and the senate has the sole power to try all impeachments. When the president of the United States is tried, the chief justice of the supreme court must preside. As a precaution against the use of impeachment for party purposes, a two-thirds vote is required for conviction. In case of conviction the judgment cannot extend further than "to removal from office, and disqualification to hold or enjoy any office of honor, trust or profit under the United States;" but the person convicted is liable afterward to be tried and punished by the ordinary process of law.

111. The constitutional provisions for legislation are admirably simple. All bills for raising revenue must originate in the lower house, but the upper house may propose or concur with amendments as in the case of other bills. After a bill has passed both houses, it must go to the president for his approval. If he approves it, he signs it, and it becomes a law. If he disapproves it, he returns it to the house in which it originated, with a written statement of his objections, which must be entered in full upon the journal of the house. The bill is then reconsidered, and if it obtains a two thirds vote it is sent, together with the objections, to the other house. If it passes there by a two-thirds vote, it becomes a law. Otherwise it fails. If the president keeps a bill longer than ten days (Sundays excepted) without signing it, it becomes a law without his signature, unless Congress adjourns before the expiration of the ten days, in which case it fails to become a law, just as if it had been vetoed. This method of vetoing bills just before the expiration of Congress, by keeping it in one's pocket, so to speak, was styled a "pocket veto," and was first employed by President Jackson in 1829.

The president's veto power.

Powers granted to Congress.

112. By the constitution, Congress has the power "to lay and collect taxes, duties, imposts and excises, to pay the debts and provide for the common defense and general welfare of the United States," but all duties, etc., were to be uniform throughout the United States. Other powers are naturally attached to this—such as the power to borrow money on the credit of the United States; to regulate foreign and domestic commerce; to coin money and fix the standard of weights and measures; to provide for the punishment of counterfeiters; to establish post-offices and post-roads; to issue copyrights and patents; to establish courts inferior to the supreme court; to punish offenses committed on the high seas, or against the law of nations; to declare war, grant letters of marque and reprisal, and make rules concerning captures on land and water; to raise and support an army and navy (no appropriation to be for more than two years), and to make rules for the regulation of the land and naval forces; to provide for calling out the militia to suppress insurrections and repel invasions, and to command the militia while actually employed in the service of the United States. The several states, however, were to train their own militia and appoint the officers. Congress may also establish a uniform rule of naturalization, and uniform laws on the subject of bankruptcies, but it has not yet done so. It was also empowered to establish a national capital or federal district (which is the District of Columbia, containing the city of Washington), to exercise exclusive control over it, and over forts, magazines, arsenals, dockyards and other needful buildings, which it erects within the several states upon lands purchased for such purposes with the consent of the state legislature; and finally, "to make all laws which shall be necessary and proper for carrying into execution the foregoing powers and all other powers vested by this constitution in the government of the United States, or in any department or office thereof." This last clause may be called the elastic clause of the constitution. It has been the subject of continued debate, and has undergone a great deal of stretching for one purpose and another. It was a profound disagreement in the interpretation of this clause which, after 1789, divided the American people into two great political parties.

The "Elastic Clause."

Powers denied to the States.

113. The national authority of Congress is further sharply defined by the express denial of sundry powers to the several states. The states are expressly forbidden to impose any duties on imports or exports, except for inspection charges, which must be passed over to the treasury of the United States; to make treaties of any kind; to lay any duty on tonnage; to keep troops or ships of war in time of peace; to engage in war unless actually invaded, or in such imminent danger as will admit of no delay; to grant letters of marque and reprisal; to coin money; to emit bills of credit; to make anything but silver a legal tender; to pass any bill of attainder, *ex post facto* law, or law impairing the obligation of contracts, or to grant any title of nobility.

Prohibitions laid upon Congress.

114. Some express prohibitions were laid upon the National Government. Duties may be laid upon imports, but not upon exports. Duties and excises must be uniform throughout the country, and no commercial preference can be shown one state over another. The privilege of the writ of *habeas corpus* cannot be suspended except "when, in cases of rebellion or invasion, the public safety may require it." A census must be taken every 10 years in order to adjust representation, and no direct tax can be imposed except according to the census. No bill of attainder, or *ex post facto* law can be passed. A bill of attainder is a special legislative act by which a person may be condemned to death, or to outlawry and banishment, without the opportunity of defending himself, to which he is entitled in a court of law.

Bills of attainder.

Congress can grant no title of nobility, and no federal officer can accept a present, office, or title from a foreign state without the consent of Congress. "No religious test shall ever be required as a qualification to any office or public trust under the United States." Money is to be taken from the treasury only in consequence of appropriations made by law.

Qualifications for the presidency.

115. No one is eligible to the office of president unless he is a native born citizen. The candidate must be at least 35 years old, and must have been 14 years a resident of the United States. The president's term of office is four years. The constitution says nothing about his re-election, and there is no written law forbidding his being re-elected many times. Some of the presidents have served two consecutive terms, and it seems to have become the established custom not to go beyond that. The president is solemnly sworn to execute his office faithfully, and "to preserve, protect, and defend the Constitution of the United States" to the best of his ability. In case of his death, resignation, or inability to perform the duties of his office, the vice-president takes his place; and, in the case of the inability of both, the members of the cabinet succeed in the order prescribed in the Presidential Succession Act of 1886. The president is commander-in-chief of the military and naval forces of the United States, and of the militia in the several states actually engaged in the service of the United States: and he has the prerogative of granting reprieves and pardons for offences against the United States, except in cases of impeachment. He can make treaties with foreign powers; but no treaty is valid unless confirmed by a two-thirds vote of the senate. He appoints ministers to foreign countries, consuls, and the greater officers, such as the heads of executive departments and judges of the supreme court, and all other officers whose appointment Congress has not vested in other officers: but all presidental appointments are to be confirmed by the senate. When vacancies occur during the recess of the senate, he may fill them by granting commissions to expire at the end of the next session. He commissions all federal officers. He receives all foreign ministers. He may summon either or both houses of Congress to an extra session, and if the two houses disagree in regard to the time of adjournment, he may adjourn them to such a time as he thinks best, but of course, not beyond the time fixed for the beginning of the next regular session. The president must from time to time make a report to Congress on the state of affairs in the country, and suggest such a line of policy or such special measures as may seem proper to him. This report has taken the form of an annual written message. He may also call upon the heads of departments for an opinion, in writing, on any subject relating to such department. The president is paid by the United States, and his salary is not to be increased or diminished by Congress during his term of office. The act authorizing any increase must apply only to the successors of the president who signs the act.

Powers and duties of the president.

The President's message.

Executive departments.

116. The constitution made no express provision for the creation of executive departments, but left the matter to Congress. At the beginning of Washington's administration three departments were created—those of state, treasury and war, and an attorney general was appointed. Since then the number of departments has been increased, until now (1890) there are eight: those of state, of the treasury, of war, of the navy, of the post-office, of the interior, of justice, and of agriculture. The chief officer of each department is called its secretary. The secretaries of these departments are the president's advisers, and constitute his cabinet. They are selected by the president and are confirmed by the senate, but are responsible to no one but the president.

The Secretary of State.

117. The secretary of state ranks first among the cabinet officers. He is the minister of foreign affairs, and is the only officer who is authorized to communicate with other governments in the name of the president. He is at the head of the diplomatic and consular service, issuing instructions to the United States ministers abroad, and taking a leading part in the negotiation of treaties. He keeps the national archives, and superintends the publication of laws, treaties and proclamations, and he is the keeper of the great seal of the United States. The cabinet officer next in rank is the secretary of the treasury. He conducts the financial business of the country, superintends the collection of revenue, and gives warrants for the payment of moneys out of the treasury. He also superintends the coinage, the national banks, the custom-houses, the coast-survey and lighthouse system, the marine hospitals, and life-saving service. He sends reports to Congress, and suggests such measures as seem good to him. He is aided by two assistant secretaries, six auditors, a register, a comptroller, a solicitor, a director of the mint, commissioner of internal revenue, chiefs of the bureau of statistics and bureau of printing and engraving, etc.

Secretary of the Treasury.

118. The war and navy departments need no special description here. The war department is divided into ten bureaus, among which is the weather bureau, presided over by the chief signal officer. The navy department consists of eight bureaus, and among its many duties it has charge of the naval observatory at Washington, and publishes the nautical almanac. The department of the interior is divided into eight bureaus. It deals with public lands, pensions, patents, Indian affairs, education, public documents, and the census. The postmaster-general's department has to do with the postal affairs of the country. The attorney-general's department was organized in 1870 into the department of justice. The attorney-general is the president's legal adviser, and represents the United States in all law suits to which the United States is a party. The agricultural department, which was created in 1889, superintends the agricultural interests of the country.

War and navy.

Department of the Interior.

Postmaster General and Attorney-General

Agricultural Department.

119. The best method of electing the president was a question which perplexed the constitutional convention as much as any other. To submit the election of an officer so exalted to the popular vote, was regarded with general distrust. At one time the convention decided to have the president elected by Congress, but there was a grave objection to this; it would be likely to destroy his independence and make him the mere creature of Congress. At last the plan of an electoral college was devised. Each state is entitled to a number of electors equal to the number of its representatives and senators together; and the electors choose the president and vice-president, meeting at their state capitals for that purpose, and sending separate certificates of their choice of president and vice-president to the presiding officer of the Senate at Washington. No federal senator or representative, or any person holding civil office under the United States, can serve as an elector. Each state may appoint or choose its electors in such a manner as it sees fit; at first, they were more often than otherwise chosen by the legislatures; now they are always elected by the people. The day of election must be the same in all the states. By act of Congress the electors are to be chosen on the Tuesday after the first Monday in November.

The Electoral College.

120. It was the original intention that the electors should be left free to make their own choice, and there are instances in early years of electors of one party voting for personal friends of the opposite party. At first the electoral votes did not state whether the candidates named in them were candidates for the presidency or vice presidency. Each elector simply wrote down two names, only one of which could be the name of a citizen of his own state. In the official count, the candidate who had the highest number of votes, provided they were a majority of the whole number, was declared president, and the next highest became vice-president. The natural result of this was seen in the

Powers of electors.

first contested election in 1796, which gave the presidency to John Adams, while his antagonist, Thomas Jefferson, became vice-president. In 1800, Jefferson and his colleague Burr received exactly the same number of electoral votes. This threw the election into the house of representatives, and such intrigues followed for the purpose of defeating Jefferson that the country was threatened with civil war. This necessitated a change in the method of election. In 1801, the twelfth amendment was adopted. The method by this amendment was changed so that the electors make separate ballots for president and vice-president. In the official count the votes for the president are first counted. If no candidate has a majority then the house of representatives must immediately choose the president from the three names highest on the list. In this choice the house votes by states, each state having one vote; a quorum for this purpose must consist of at least one member from two-thirds of the states, and a majority of all the states is necessary for a choice. Then if no candidate for the vice-presidency has a majority, the senate makes its choice from the two names highest on the list. A quorum for the purpose consists of two-thirds of the whole number of senators, and a majority of the whole number is necessary to a choice.

The twelfth amendment.

121. In 1877 an unforeseen difficulty arose, and one for which no provision had been made. During the presidential contest between Tilden and Hayes, South Carolina, Florida and Louisiana had each set up rival governments. Ballots for Tilden and ballots for Hayes were sent in at the same time by the two hostile sets of electors in each of these states, each list being certified by one of the two rival governors in the same state. In the absence of any recognized means of deciding which ballots to count, the two parties in Congress submitted the result to arbitration. An "electoral commission" was created for the occasion, consisting of five senators, five representatives and five judges of the supreme court. By this expedient, a clumsy one perhaps, the difficulty was tided over. The question of conflicting returns has at length been set at rest by the act of 1887, which provides that no electoral votes can be rejected in counting, except by the joint action of both houses of Congress.

The electoral commission.

122. The judiciary is the third of the three great departments of the general government. The constitution itself provides for one supreme court, but leaves to Congress to determine how many inferior courts should be established. The organization of the supreme court is also left to Congress. The chief reason why a national judiciary is necessary in addition to the state systems is that the state judges might be biased in favor of their own state. Laws of Congress often bear with greater hardship on some states than others, and public opinion in those states upon whom the burden lay, might be so strong in opposition, that no judge elected and supported by those people would sustain it. But if the judge belonged to a national system, and thus represented and was supported by the whole nation, he would have nothing to fear, and thus his decision would be more impartial. The experience of the confederation taught this. The national judiciary consists of three grades of courts: The supreme court, the circuit courts and the district courts. The supreme court is the highest in the land, and was established by the constitution itself. The others were established by Congress. The supreme court consists at present of a chief justice and eight associate justices, and its jurisdiction is almost wholly appellate; that is, cases are not tried in it, but it only hears appeals from other courts, and that only in the most important cases. It has original jurisdiction in a few cases. Of the circuit courts there are nine in the country. Each of the nine judges of the supreme court is also presiding judge of a circuit court. The area of the United States, not including the territories, is divided into nine circuits, and in each circuit the presiding judge is assisted by special circuit judges. The circuits are divided into fifty six districts and in each of these there is a special district judge. The districts never cross state lines. They cover each a state or a part of a state.

Need for a federal judiciary.

Courts.

123. By the constitution, the judges hold office during good behavior. In no other department of the general government are offices held for so long a term. The purpose is to insure a correct and impartial administration of justice by making the judges independent of conflicting parties. The object of the framers of the constitution was to remove them as far as possible from undue political influences. As with the president, so in this case. Congress, though it fixes the salaries of the judges, cannot diminish them while in office. The jurisdiction of the federal courts does not extend to all kinds of cases, but only to such as the constitution specifies. The cases enumerated in the constitution in which the national courts have jurisdiction may be divided into three general classes, (1) those arising under the constitution, the laws of Congress and treaties, (2) those affecting foreigners, and (3) those between different states or the citizens of different states. Cases which arise under the constitution, laws or treaties of the United States may be those where a person is given a right by the constitution, etc., which he does not have by the laws of his state, as for instance a right to sue an infringer of a patent granted to him, or where he violates a law of Congress or treaty, as counterfeiting coin, or doing anything forbidden by a treaty, or where any question arises as to the meaning of the constitution, laws or treaties of the United States, or as to whether a law of Congress is constitutional or not. In these cases it makes no difference whether the parties are citizens of the same state or not. The jurisdiction is given to the national judiciary for two reasons: First, in order that in the interpretation and enforcement of its own laws, it may not be dependent on the states; and second, in order that the interpretation may be uniform throughout the country.

Tenure of office.

Salary.

Federal jurisdiction.

Cases under United States laws.

124. In cases affecting foreigners, the decision properly belongs to the federal courts, for the reason that if a foreigner is injured here, the nation, and not the state, is responsible to the foreigner's government; therefore the nation, and not the state, should make redress for the injury. And where the foreigner is an ambassador, or other minister, the supreme court has original jurisdiction in the case. Admiralty jurisdiction is also given to the federal courts, for the reason that many admiralty cases affect foreigners. Another reason is, that admiralty is a part of the regulation of commerce, which is a subject taken away from the states and given entirely to the United States.

Cases affecting foreigners.

125. The third class of cases in which the federal courts have jurisdiction, is where the parties on the two sides, plaintiff and defendant, are either two different states, or citizens of different states. The federal courts are to decide controversies between two or more states; because, domestic tranquility requires that the contention of states should be peacefully terminated by a common judicatory and because, in a free country, justice ought not to depend on the will of either of the litigants. They are to decide controversies between a state and the citizens of another state; because, in case a state (which comprehends all its citizens) has demands against some citizens of another state, it is better that she should prosecute their demands in a federal court than in a court of the state to which those citizens belong, the danger of irritation and criminations arising from apprehensions and suspicions of partiality being thereby obviated. They are to decide controversies between citizens of the same state claiming lands under grants of different states; because, as the rights of the two states to grant the land are drawn into question, neither of the two states ought to decide the controversy.

Cases affecting different States or their citizens.

126. The judicial power of the United States extends to all cases of law and equity arising under the constitution and laws thereof, and to treaties made under their authority. But there are two kinds of jurisdiction, original and appellate. Original jurisdiction is jurisdiction of a cause from its beginning. If a party can *begin* his suit in the circuit court, for instance, then that court has original jurisdiction in the case. If he cannot bring his case into the circuit court until it has been tried in some lower court, then the circuit court is said to have appellate jurisdiction. Appeal lies from the district court to the circuit court when the matter involved is of a value greater than $500, and from the circuit court to the supreme court when $5,000 or more is involved.

Original and appellate jurisdiction.

127. No direct suit can be brought against the United States either by a citizen or a state, without the authority of an act of Congress. But in 1855 Congress established a court, called the court of claims, in which those having claims against the United States, may bring a suit in the ordinary way. The demand is presented to the court by petition, setting forth specifically its origin and nature, and the party is allowed to prove it by the same rules of evidence which are usually adopted in a court of justice. If a claim is established Congress makes provision for its payment. An attorney, called the solicitor of the United States, appears before this court in behalf of the government.

Court of claims.

128. In the constitution, treason is made to consist only in levying war against the nation, or in adhering to its enemies, giving them aid and comfort. The purpose was to make the meaning as definite as possible, so that all opportunity for constructive treason might be removed. It has been decided by the court that there must be an actual levying of war; that a conspiracy to subvert the government by force is not treason. But if war be actually levied, that is, if a body of men be actually assembled for the purpose of effecting by force a treasonable purpose, all those who perform any part, however minute, or however remote from the scene of action, and who are actually leagued in the general conspiracy, are to be considered as traitors. Conviction of treason requires the testimony of two witnesses to the same overt act of treason, or a confession in open court. A private confession passes for nothing. To Congress is given the power to declare the punishment of treason, "but no attainder of treason is to work corruption of blood, or forfeiture, except during the life of the person attainted." The *attainder* spoken of in this clause must be that connected with the judgment pronounced by a court, and not a legislative attainder, for we have already seen that Congress is forbidden, as also the states, from passing any bill of attainder. Congress might provide for a judicial attainder in the case of treason, but the the effects of this attainder must be limited to the life of the offender.

Treason.

As treason is a crime against sovereignty, a violation of one's allegiance, there can be no treason against a particular state. The states, however, have always asserted their power to punish for treason against them individually. It has never been fully maintained in practice; but the theory had its effect in the secession period. If a state, by its courts, punishes treason, it must not be as treason against itself, but as treason against the union; and in this view, the propriety of that state legislation which affixes to it particular penalties, is doubtful.

129. Article IV of the constitution contains a number of important provisions, most of which affect the relations of the states to each other, and to the general government. The first one is in regard to the effect which the laws, records and judgments of our state shall have in another, and the provision is that they shall have full effect everywhere. No state can grant privileges to its own citizens, from which the citizens of other states are excluded. There must be an equality of citizenship everywhere. Without such a provision, any state might deny to citizens of other states the right to buy and hold real estate, or to become voters after living in the state the prescribed time, or to enjoy equal privileges in trade or business. The subject of delivering up fugitives from justice, is one which among different nations, has involved some doubts. The constitution of the United States, however, provides that they shall always be given up to those who, in the states, have a right to require it. By the common law, a slave escaping into a non-slaveholding state became free. But the constitution provided that fugitive slaves were to be surrendered to their owners. Escaped slaves were, under this provision, returned to the south up to 1861. The clause is of course obsolete now.

Relations of States.

Privileges of citizens.

Fugitive criminals.

Fugitive slaves.

130. The constitution provides for the admission of new states to the union, but it does not allow a state to be formed within another state. A state cannot "be formed by the junction of two or more states, or parts of states, without the consent of the legislatures of the states concerned, as well as of the Congress." Shortly before the making of the constitution, the United States had been endowed for the first time with a public domain. The territory northwest of the Ohio river had been claimed, on the strength of old grants and charters, by Massachusetts, Connecticut, New York and Virginia. In 1777 Maryland refused to sign the Articles of Confederation until these states should agree to cede their claims to the United States, and thus, in 1784, the Federal government came into possession of a magnificent territory, out of which five great states—Ohio, Indiana, Illinois, Michigan and Wisconsin—have since been made. While the Federal convention was sitting at Philadelphia the Continental Congress at New York was doing almost its last, and one of its greatest pieces of work in framing the ordinance of 1787 for the organization and government of this newly acquired territory.

New States.

The Northwest Territory.

131. In 1803 the vast territory of Louisiana, comprising everything (except Texas) between the Mississippi river and the crest of the Rocky Mountains, was purchased from France. A claim upon the Oregon territory was soon afterward made by discovery and exploration, and finally settled in 1846 by treaty with Great Britain. In 1848 by conquest, and in 1853 by purchase, the remaining Pacific lands were acquired from Mexico. All of this vast region has been at some time under territorial government. As for Texas, on the other hand, it has never been a territory. Texas revolted from Mexico in 1836 and remained an independent state until 1845 when she was admitted to the union. Territorial government has generally passed through three stages: First, there are governors and judges appointed by the president; then, as population increases, there is added a legislature chosen by the people, and empowered to make laws subject to confirmation by Congress; finally, entire legislative independence is granted. The state is then ripe for admission to the union as a state.

Other territories and their government.

132. The national government was to guarantee to each of the states a republican form of government, and to protect each of them against invasion or, on application of the legislature or governor, against domestic violence. This clause makes a republican government necessary in every state. It is equivalent to saying that no other shall be permitted to be established. This is the only instance in the constitution where the government has a duty enjoined upon it, while the particular department is not mentioned. Here the obligation is from the United States to the states; but whether to be exercised by the president or by Congress is one of the questions that has grown out of the reconstruction measures. In the case of Rhode Island the supreme court held "It rests with Con-

Guarantee clause

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103 Longitude West 99
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Longitude West
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DOMINION
PACIFIC OCEAN
OREGON COUNTRY
CLAIMED BY RIGHT
OF DISCOVERY AND
ORIGINAL OCCUPATION
CONFIRMED BY
TREATY WITH SPAIN
1819, AND TREATY WITH
ENGLAND 1846.
WASHINGTON
IDAHO
MONTANA
WYOMING
NEBRASKA
COLORADO
NEVADA
UTAH
ARIZONA
NEW MEXICO
CALIFORNIA
LOWER CALIFORNIA
MEXICO
PROVINCE OF
FREN
CEDED BY MEXICO
IN THE TREATY OF GUADALOUPE
HIDALGO 1848
SECOND MEXICAN CESSION
OR GADSDEN PURCHASE 1852
NEUTRAL STRIP
TEX
ANNEXATIO
Missouri
White
Earth R.
Arkansas
Colorado
River
Gila
Pecos
Rio
Grande
Nueces
ARCTIC OCEAN
BEHRING SEA
RUSSIAN CESSION
1867
Mt. St Elias
PACIFIC OCEAN
ALASKA
170
130

MAP SHOWING THE

TERRITORIAL GROWTH

OF THE UNITED STATES

1776-1887

gress to decide what government is the established one in a state. For, as the United States guarantee to each state a republican government, Congress must necessarily decide what government is established before it can determine whether it is republican or not. And when the senators and representatives of a state are admitted to the councils of the union, the authority of the government under which they are appointed, as well as its republican character, is recognized by the proper authority."

Republican government.

133. The constitution does not define a *republican* government. The national government may be assumed to be republican in form, and thus a model for the states. Mr. Madison says: "We may define a republic to be a government which derives all its powers directly or indirectly from the great body of the people, and is administered by persons holding their offices during pleasure, for a limited period, or during good behavior." Farrar says: "The principle of republicanism is the equal right of the people, the citizens, all the members of the body politic. In theory it is the government of public opinion. The fundamental principles of right and justice for the government, the representative character of the governors, and their practical responsibility to the governed, are the essentials of republicanism."

State governments.

134. The constitution indirectly requires various provisions in the state governments by enjoining duties. The senators of the United States are to be elected by the state legislatures. Members of the house of representatives are to be elected by the same electors as vote for the members of the most numerous branches of the state legislature. The executive of the states is often referred to. The judges are to take oath to obey the constitution of the United States. Thus the states must have three great departments, the legislative, executive and judicial. The legislature must be in two branches, and the most numerous branch must be elected by the people. The states are supposed to have written constitutions.

The first ten amendments.

135. One of the strongest objections urged by its opponents against the adoption of the constitution as it came from the hands of the convention, was the want of a recognition of certain rights of citizens. To meet this objection, in September, 1789, the first ten amendments were proposed by Congress, and in December, 1791, they were declared in force. These ten amendments, which are called a "Bill of Rights," because they contain a list of the rights deemed most important to the liberty of the people, do not change any original provision of the constitution. They act merely as restrictions and limitations upon the powers of Congress, and were deemed unnecessary by those who framed the constitution for the reason that these rights were so generally acknowledged, and that the powers of Congress were limited to those expressly granted to it. But as several of the state conventions had, at the time of adopting the constitution, expressed a desire that declarations and guarantees of certain rights should be added in order to prevent misconstruction and abuse, the first Congress, at its first session, proposed twelve amendments, ten of which were ratified by the requisite number of states. These amendments forbade the establishment of any religion by Congress, or any abridgment of freedom of worship, of speech, or of the press, or of the popular right to assemble and petition the government for redress of grievances, the billeting of soldiers, unreasonable searches or seizures, or general warrants, trials for infamous crimes except through the action of a grand jury, subjecting a person for the same offence to be twice put in jeopardy of life or limb, compelling him to witness against himself in criminal cases, the taking of life, liberty, or property without due process of law or without compensation for property, and the demand of excessive bail, or the imposition of excessive or of cruel or unusual punishments. They confirmed the right of the people to keep and bear arms, to a jury trial from the vicinage in criminal cases or in cases involving more than twenty dollars, to a copy of the indictment, to the testimony against the prisoner, to compulsory process in his half, and to counsel for him. Finally, it is declared that "the enumeration of certain rights shall not be construed to deny or disparage others retained by the people," and that "the powers not granted to the United States by the constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people."

Supreme law of the land.

136. All the debts of the federation, and its engagements, were made binding on the new government; and the constitution, and the laws and treaties to be made under it were declared to be "the supreme law of the land;" the judges in every state were to be bound thereby, "anything in the constitution or laws of any state to the contrary notwithstanding." The language of this clause is clear and explicit. The people of the United States established this constitution for the United States. It was the work of the nation itself, and was binding in every part of the republic. This clause was intended to affirm the supremacy of the national government over the state governments. If the constitution was not the supreme law of the land it would not be a consitution, it would be a nullity. Its supremacy is necessarily involved in the instrument itself, yet it was necessary to declare it, in order that all might understand it and no room be left for controversy.

VI. THE GOVERNMENT UNDER THE CONSTITUTION.

Inauguration of president.

137. As soon as the constitution had been ratified by the requisite number of states, Congress named the first Wednesday in January, 1789, as the day for the choice of electors, the first Wednesday in February for the choice of president and vice-president, and the first Wednesday in March for the inauguration of the new government at New York city. The last date fell on the 4th of March, and this has been the limit of each president's term since that time. The election took place at the appointed time, and when the votes of the electors were counted before Congress it was found that George Washington had been unanimously elected president, and that John Adams, standing next on the list, was vice-president. Before the inauguration, the old Confederate Congress had "given up the ghost." On October, 1788, its record ceased, and for nearly six months the United States were without any national government. The contest for nationality had been successful, and the old order of things passed away forever.

Washington the first president.

The condition of the country.

The first census.

138. The nation over which George Washington was called to preside in 1789 was a third-rate power, inferior in population and wealth to Holland, for example, and about on a level with Portugal or Denmark. The first census was taken in 1790, and the population was then four millions. The people were thinly scattered through the thirteen states between the Atlantic and the Alleghanies, beyond which mountainous barrier a few hardy pioneers were making the beginnings of Tennessee, Kentucky, and Ohio. Roads were few and bad, none of the great rivers were bridged, mails were irregular. There were few manufactures. There were many traders and merchant seamen in the coast towns of the north, but the great majority of the people were farmers, who lived on the produce of their own lands, and seldom undertook long journeys. Hence the different parts of the country knew very little about each other, and entertained absurd prejudices, and the sentiment of union between the states was extremely weak. East of the Alleghanies the red man had ceased to be dangerous, but tales of Indian massacre still came from regions no more remote than Ohio and Georgia. Spain still held vast possessions west of the Mississippi.

The only other power which had possessions in North America was England. The feeling entertained toward the states in England was one of mortification and chagrin, accompanied by the hope that the half-formed union would fall to pieces, and its separate states be driven by disaster to beg to be taken back into the British empire. The rest of Europe knew little about the United States, and cared less.

The beginning of the government.

139. It was under these circumstances that the young government began its career, and it was fortunate for it that it began under the auspices of such an administration as Washington's. Congress met in New York, March 4, 1789. It adopted twelve amendments to the constitution, ten of which, as has been shown, were ratified by the states. But the most pressing business before Congress was to obtain money to pay the debt of the confederation. This difficult work was so successfully accomplished that little change has been found necessary in financial methods from that day to this. Washingtou's cabinet consisted of Thomas Jefferson, as secretary of state; Alexander Hamilton, as secretary of the treasury; and Henry Knox, as secretary of war. John Jay was appointed chief justice, and Edmund Randolph attorney-general. The financial success of the government was mainly due to the organizing genius of Hamilton, assisted by the skill and tact of Madison, as leading member of the house of representatives. Hamilton saw in the payment of the national debt an opportunity to give strength to the United States in the eyes of foreign nations. He saw also that it gave an opportunity to bind the states in a more perfect union. He proposed

Hamilton's measures.

three measures: First, that the government should assume the foreign debt of the Confederation, and pay it in full: secondly, that the domestic debt, which seemed to have been virtually repudiated, should likewise be assumed and paid; thirdly, that the debts of the separate states should also be assumed and paid by the federal government. The first proposition was adopted unanimously. The second was opposed on the ground that it would only benefit speculators, who had bought up United States securities at a discount; but by dint of forcible reasoning the measure was carried. The third measure caused great debate, and met with violent opposition. There was a fierce and bitter fight over it, which at last was only settled by great political manipulation.

Federalists and anti-Federalists

140. There were already two parties in the country, the Federalists, who desired a strong general government, and who had urged the people to accept the constitution, and the anti-Federalists, who wished to give more power to the state government, and less to the general government. Hamilton was the leader of the Federal party, and the anti-Federalists united to defeat his last measure. At this time the site of a Federal capital was to be selected. The northern people generally wished to have it not further south than the Delaware river, while the southerners were determined to have it no further north than the Potomac. Hamilton was bent on carrying his point, and took advantage of this dispute. He persuaded two Virginia congressmen to change their votes and support his measure. In return he promised to use his influence to have the capital located upon the banks of the Potomac, instead of at some northern point. This change of votes gave him the requisite majority. The assumption of state debts was a master stroke of policy. All those persons to whom any state owed money were at once won over to the support of the Federal government. Many of these persons were powerful and wealthy; and all now felt a common interest in upholding the national credit, which, through these wise and vigorous measures of Hamilton, was soon completely restored.

Revenue.

141. The next step was to raise a revenue for the carrying on of the government, and this must be raised by Federal taxation. There were two ways in which this could be done—by imposing duties on goods imported into the country, or by levying internal taxes. By the first method, the United States would declare its right to tax foreigners; by the second, to tax its own citizens. The former method was mainly resorted to, because it was more indirect, and because the people, as yet, did not like the idea of being directly taxed to support the general government, even though it had been established by themselves. However, a tax was laid upon the manufacture of spirituous liquors in 1794, and this caused serious trouble. The settlers in the mountains of Pennsylvania and Virginia had long since found out that it cost more to carry their corn and wheat to market than they could sell it for, and accordingly they distilled it into whisky. When Congress laid a tax on whisky, they bitterly opposed it, and when the revenue officers came to collect the tax, the settlers refused to pay it, and threatened to take up arms. But Washington instantly sent an army of sixteen thousand men into the disaffected region, and the insurrection was summarily suppressed.

Whisky insurrection.

Indian war.

142. The Indian tribes on the Ohio became very troublesome to the settlers who now began to pour into the west. General Harmer, who was sent against the savages in 1790, was defeated near the present site of Fort Wayne, Indiana, and General St. Clair met with a similar disaster the next year. General Wayne ("Mad Anthouy") was then despatched to the Indian country. He devastated their villages, sweeping everything before him, till he reached the Maumee river, in the northwest corner of Ohio. There he won a great victory near the site of Maumee City, August 20, 1794, and obliged the Indians to sue for terms. By a treaty concluded in the following year, the United States acquired from the savages a large tract for settlement in the present states of Ohio and Indiana.

Origin of political parties.

143. About this time the divisions between political parties become strongly marked. The occasional irritation shown in the debates in Congress is an evidence that the first ill defined estimate of the new scheme of government was giving way to positive and settled opinions of its powers, and of the policy which should be followed in managing it. As we have seen, people were first divided into two great national parties in the autumn of 1787, when the question at issue was whether the Federal constitution should be ratified by the states. It is probable that a majority of the American people were anti-Federalists in 1789, although the Federalists, by the active assistance of many of their natural opponents, had gained the executive, the house, the judiciary and most of the state legislatures, and were able to defeat the disagreeing factions known collectively as anti-Federalists. Hamilton's measures as secretary of the treasury embodied an entire system of public policy, and the opposition to them made the differences between the two parties still more prominent. Hamilton's opponents, led by Jefferson, made the objection to his principal measures that they assumed powers in the national government which were not granted to it by the constitution. Hamilton then fell back upon the elastic clause of the constitution, and maintained that these powers were implied in it. Jefferson held that this doctrine of "implied powers" stretched the elastic clause* too far. He claimed that this clause ought to be construed strictly and narrowly. Hamilton contended that it ought to be construed loosely and liberally. Hence the names "strict-constructionist" and "loose-constructionist," which mark, perhaps, the most profound and abiding antagonism in the history of American politics.

144. During the year 1792, the various anti-Federalist factions had become cemented into one party through their efforts in resisting the Federalists, but the party still lacked a name. That of anti-Federalist was no longer applicable, for its opposition to the Federal

* Article I., Section VIII., Clause 18.

union had entirely ceased, and the parties had become divided in the only sound and healthy way possible in a free country, namely, into those who wished to extend, and those who wished to limit, the powers of government. Neither party had been consistent in applying its principles, but in the main, Hamilton can be called the founder of the Federalist party, which had for its successors the National Republicans of 1828, the Whigs of 1833 to 1852, and the Republicans of 1851 to the present time; while Jefferson may be regarded as the founder of the party which, after discarding the old name of anti Federalist, adopted that of Democratic-Republican. This always was the *official* party title. They preferred to be called Republicans, while their enemies tried to call them Democrats, an epithet which was then supposed to convey a stigma. However, the correct name for this party was Republican from about 1792 to about 1828, and since then it has been known as the Democratic party.

145. At the request of both Federalists and Republicans, Washington consented to serve as president a second time, so that the party contest was narrowed down to the vice-presidency. For this office the anti-Federalists, or Republicans, as they were now called, supported George Clinton, of New York, while the Federalists presented the name of John Adams. Jefferson would doubtless have been put forward, but that would have cost Virginia her vote, for her electors could not have voted for Washington and Jefferson, both being from Virginia. The presidential election took place November 6, 1792, and resulted in a Federalist success and the re-election of John Adams. During Washington's first term, Vermont, by consent of Congress, was admitted into the Union (February 18, 1791,) and Kentucky became a state on the 1st of June, 1792. In the year 1791 a bill for the establishment of a national bank was introduced into Congress, which passed after a strong debate.

National bank.

Washington's second term.

146. During the first years of the American Republic, the terrible scenes of the French Revolution were enacted. Jefferson and the anti-Federalists sympathized strongly with the French Revolutionists, and wished to aid them in their struggle against the European powers. This party specially affected the leveling principles avowed by the French Republicans, and the opposite party did not object to these principles to a limited degree. Early in April, 1793, news was received that the French Republic had declared war against Great Britain and Holland. It excited the sympathies of the American people for their sister republic, even though that republic was the aggressor; and it needed a firm hand and indomitable will like Washington's at this time to control public affairs, for the country was in a position to drift easily into war as an ally of France. Washington consulted his cabinet, and by their unanimous advice determined to regard the former treaty as nullified by the change of government in France, and to issue his proclamation of neutrality between the French Republic and her enemies. The proclamation at once called down a storm of rage and invective against the president. He was assailed by the press and extreme republicans, and accused of being an enemy to France and republican institutions, of disregarding a solemn treaty, and of usurping the functions of Congress in regard to the announcement of peace or war.

Proclamation of neutrality.

147. The French expected the Americans to help them in their war with England; and in 1793 they sent over a minister to the United States to induce them to do so. This man was called Citizen Genet. He arrived at Charleston, South Carolina, in April, and was received with the most extravagant marks of public attachment. Misled by the warmth of his reception, he entered on and persisted in a course which would only have been pardonable if he had been still on French soil. He fitted out privateers from American ports to cruise against the enemies of France, and sought to embark the American people in the cause of his country whatever might be the determination of the government. Many Republicans were disposed to uphold him in all his acts, but his insolence presently disgusted his own supporters. He violently assailed President Washington and the government, and otherwise misbehaved himself, until Washington sternly checked his proceedings, and at length complained of him to the French government, which thought best to recall him.

Citizen Genet.

148. About this time war was apprehended between the United States and England. England had never accredited a minister resident to the United States, and had refused to carry out those articles of the Treaty of 1783, which bound her to surrender her military posts on United States soil, and to pay for the slaves carried away by her armies. She had also issued orders which bore hard upon American merchants and sailors. She claimed the right to lay hold of any provision for the enemy which she might find in a neutral vessel, to seize the product of French colonies wherever found; and to board any vessel to make search for seamen of British birth, and carry them off for her own service. It was also believed that her agents had interfered to prevent treaties of peace with the savages of the northwest, and had incited them to renewed attacks upon the frontier settlements. Her refusal to evacuate the western posts was grounded on the alleged unjustifiable neglect of the United States to enforce that article of the treaty of 1783 which provided for the payment of debts due to British subjects. For her further offensive measures no justification was offered, except her sovereign will. Out of these circumstances war might easily have grown, and it required all the wisdom of Washington and his advisers to prevent it. So bitter was the feeling against England held by men of both parties, that Congress began at once to take measures to raise an army, equip a navy and to stop all commerce with her. War was imminent, and Washington determined to avert it.

Threatened war with England.

149. He appointed John Jay, who was then chief justice, to be envoy extraordinary to England, for the purpose of preserving peace by a new treaty, in which the points in dispute between the two countries should be settled. Jay concluded a treaty with England which did not satisfy him, but which was the best he could secure. It reached America March 7, 1795, and was sent to the senate in special session, June 8. The treaty provided that the western posts be surrendered to the United States, that compensation be made for illegal captures of American property, and British creditors be secured the means of collecting debts, contracted prior to the Revolution. But England still retained the right of impressing American seamen of English birth, and of shutting off American commerce from the West Indian trade. When the conditions of the treaty became known there was great excitement in all portions of the country, and the wrath of the Republicans rose to fever heat. Hamilton was stoned on the street, and scurrilous newspapers railed against Washington, calling him the "step-father of his country." But the senate ratified the treaty, and Washington signed it, because, imperfect though it was, it was better than none, and would avert war. It was the first substantial recognition which England had made of the sovereign rights of the United States, and the result proved Washington's wisdom, for peace prevailed, commerce revived, and many who had at first denounced the treaty, became its friends.

Jay's treaty.

150. During Washington's second term, party contests had become numerous in the sessions of Congress. After much opposition on the part of the Republicans, the Federalists succeeded in passing a system of indirect taxation to provide for the increased expenses of the government. A Federalist bill to prevent such practices as Genet's was opposed by the Republicans,

Party contests.

but was passed with some modifications. An attempt was made by some of the Republicans to secure the passage of resolutions censuring Hamilton's management of the treasury, but it met with no success. The supreme court had decided that an action brought by a citizen of the United States would lie against a state, just as against any other corporation. This alarmed the Republicans. An amendment to the constitution was therefore adopted by Congress, securing states against suits in the United States courts. It was afterward ratified by the required number of states, and became the XIth Amendment, which has enabled so many states to repudiate debt with impunity. In June, 1796, Tennessee, formerly a part of North Carolina, became a state of the union.

The XIth amendment.

151. The time for a new election of president was now at hand. Washington was importuned to accept a third term of office. Electors nominated by both parties were called upon to promise that, if elected, they would give their first votes to Washington, but he refused to accept. When he retired from the presidency he made a farewell address to the people of the United States. In that address, which is weighty with words of wisdom, he urged the people to prize the Union which they had formed; to remember that each part of the country had free intercourse with all other parts, and that each could help the other. He begged them to suffer no parties to gain ascendancy in the Union which should weaken its strength, and bade them to glory in the name of America. He reminded them that Europe had interests in which America had little concern, warned them against the admission of any European or other foreign influence into American councils, and urged them to make religion, education and public good faith the basis of government.

Washington's farewell address.

152. As Washington refused to be a candidate for a third term, the election of 1796 was warmly contested by the two parties. No formal nominations were made but it was understood that the Republican electors would cast their votes for Thomas Jefferson, of Virginia, and Aaron Burr, of New York, and the Federalist electors for John Adams, of Massachusetts, and Thomas Pinckney, of Maryland. Hamilton, having made so many enemies by his political zeal, was not considered a suitable candidate. The principles of the two parties were distinctly understood. The Republicans claimed to be the friends of liberty and the rights of man, the advocates of economy and of the rights of the states. The Federalists claimed support as the authors of the Government, the friends of neutrality, peace and prosperity, and the direct inheritors of Washington's policy. In February, 1797, the electrical votes were counted, and John Adams, the Federalist candidate, was found to be elected president, and Jefferson, according to the rule at the time, as second on the list, became vice-president. This was an unwise rule, since under it the death of the president might reverse the result of the election.

The principles of the two parties

153. On March 4, 1797, Adams and Jefferson were sworn into office. Shortly after the commencement of President Adams' administration the French Directory, displeased with the strict neutrality which the United States had observed during its war with England, and also on account of the treaty of peace which had been recently entered into between England and the United States, adopted resolutions highly injurious to American commerce, and refused to receive Mr. Pinckney, the American minister, until the United States had complied with their demands. The first act of Mr. Adams was to call an extra session of Congress, to determine how a war with France was to be avoided. A special commission of three envoys was sent to France, John Marshall, afterward chief justice, Charles Pickney and Elbridge Gerry, but the French government refused to receive them. Prince Talleyrand had the impudence to send secret agents to deal with the envoys. These agents demanded that a large sum of money be paid the government before the envoys could be received at all. After that the United States must lend money to France to enable her to carry on her war. When this was done France would repeal some of the acts which injured American commerce.

Difficulties with France.

154. The envoys indignantly refused to accept such terms and sent home to America an account of this infamous proposal, and Mr. Adams laid the dispatches before Congress, substituting the letters X. Y. Z. for Talleyrand's emissaries. Hence, these papers have ever since been known as the "X. Y. Z. dispatches." April 8 the senate voted to publish the X. Y. Z. letters and the dispatches of the envoys. To England they seemed of such importance that they were sent to every part of Europe to excite feeling against France. One burst of indignation arose in America, and for the moment the Republican party seemed overwhelmed. Pinckney had declared, "Millions for defence, but not one cent for tribute," and the words were taken up as a popular cry. The United States prepared for war. A few excellent frigates were built, an army was raised, and Washington was placed in command with the rank of lieutenant-general. It was during this excitement that the song of "Hail Columbia" was published. American men-of-war were ordered to seize any French vessels which should commit depredations on American commerce, and some naval engagements took place with success on the American side. Intercourse with France was suspended. The treaties with France were no longer binding upon the United States, and authority was given to the president to issue letters of marque and reprisal.

X. Y. Z. dispatches.

155. The country was now on the side of the government. The Federalists, who had been losing ground, were now stronger than before. They attempted to strengthen the government still further by passing in Congress two acts called the alien and sedition laws. The first of these acts, passed June 25, 1798, authorized the president to order out of the country any alien whom he might regard as dangerous to the peace and liberty of America, and made provisions for the fining and imprisonment of such aliens as refused to obey the president's order. July 14 the sedition law was passed. By this act a heavy fine and imprisonment were imposed upon such as should combine or conspire together to oppose any measure of the government, and upon such as should utter any false, scandalous or malicious writing against the government, Congress or president of the United States. This act was to remain in force until March 3, 1801. These laws placed a power in the hands of the government which alarmed the Republicans. They claimed that the laws were aimed against them. They opposed the action of Congress, not as friends of France but as Americans. They believed that less power should be given to the federal government, and more to the separate states. This belief, which so nearly prevented the adoption of the constitution, had never disappeared. It showed itself on every occasion, and helped to shape the course of the Democratic-Republican party. This party came to be called the Statesright party, because it was jealous lest the states should not have all their rights under the constitution.

Alien and sedition laws.

156. Thus, when the Federalists forced through Congress the alien and sedition laws, they called forth a vigorous remonstrance from the southern Republicans. A series of resolutions, drawn up by Jefferson, was adopted by the legislature of Kentucky (1798), and a similar series, drawn up by Madison, was adopted in the same year by the legislature of Virginia. These are known as the Kentucky and the Virginia Resolutions of 1798. The Virginia Resolutions asserted that in adopting the constitution the states had surrendered only a limited portion of their powers; that whenever

Kentucky and Virginia resolutions of 1798.

the Federal government should exceed its delegated authority, it was the right and duty of the states to interpose and pronounce such acts unconstitutional. Accordingly, by these resolutions, Virginia declared the alien and sedition laws to be a usurpation by the Federal government of powers not granted to it, and were thereby unconstitutional; and she appealed to the other states to join in that declaration. The response from other states being unfavorable, Virginia repealed those resolutions the next year, 1799.

157. The attitude assumed by Virginia in these resolutions was certainly uncalled for, either on her part or that of any other state, inasmuch as the constitutionality of the acts of Congress could be decided by a competent tribunal only—the federal supreme court.

Kentucky resolutions

The Kentucky Resolutions were to the same general effect as those of Virginia, but with the additional declaration that the federal constitution was merely a compact, to which the several states were the one party and the federal government the other, and that each party must decide for itself as to the infractions of the compact, and as to the proper remedy to be adopted. These resolutions received as little attention as those of Virginia. In the following year (1799) Kentucky repealed the resolutions, but with the additional clause that a state might rightfully nullify and declare void any act of Congress which it might consider unconstitutional. This was a dangerous assumption, for it verged upon the right of secession, and these resolutions were used by the south as a partial precedent for nullification in 1832, and for secession in 1860.

158. Meanwhile, though there was open hostility between France and the United States, war was not actually declared. The French, seeing the warlike attitude of the United States, became more civil. Talleyrand tried to disavow the X. Y. Z. affair, and made conciliatory proposals to Vans Murray, the American minister at the Hague. The president had expressed his determination to send no more ministers to France until assured of a friendly reception, but he suddenly appointed three envoys to that country against the protest of two of his cabinet. Their protest was sustained by the leading Federalists throughout the country, and by this act the president lost, in some degree, the support of his party. For some time also there had been intense jealousy and dislike between Adams and Hamilton, the other great Federalist leader, and this increased the difficulties of the Federalist party. When the new embassy reached Paris, they found the government in the hands of Napoleon Bonaparte, who gave them a cordial welcome, and they soon succeeded in settling the matters in dispute in an amicable manner. The policy of John Adams in making peace with France, contrary to the popular sentiment, demands the highest commendation, but it lost him the presidency for a second term.

Death of Washington.

159. On the 14th of December, 1799, George Washington died at Mount Vernon after only one day's illness. The event was mourned all over the United States with sincere sorrow, and was appropriately observed by Congress and other public bodies. Bonaparte ordered the standards of the French army to be shrouded in crape for ten days, and in England a fleet of sixty British men-of-war lowered their flags to half mast. In

Removal of the capital.

the following year the national capital was removed from Philadelphia to the site chosen on the banks of the Potomac. The city there laid out received the name of of Washington.

The fourth presidential election.

160. By the spring of 1800 it became manifest that the Federalist party was losing ground. In April the New York state election went against them. Soon after this, the dismissal by the president of some of the the cabinet officers who were too friendly with Hamilton, caused an irreparable break in the party. Hamilton printed a severe attack on the president, and endeavored to make arrangements for giving Pinckney a majority of Federalist electors that he might be chosen president and Adams vice-president, as these two were the nominees of the Federalist party. The Republican candidates were Thomas Jefferson, of Virginia, and Aaron Burr, of New York. The fourth presidential election took place in November, 1800. The election was very close. In February, 1801, the electoral votes were counted, of which 73 were for Jefferson, 73 for Burr, 65 for Adams, 64 for Pinckney, and 1 for Jay. There was no highest name on the list, and it was left for the house of representatives to choose between the two highest candidates. The house was Federalist, but was restricted to a choice between two Republicans. Some of the Federalists wished to elect Burr instead of their great opponent, Jefferson, but Hamilton used all his influence against such a scheme, and at last, on February 17, 1801, Jefferson was elected by the house, and Burr became vice-president.

Fourth administration.

161. The inauguration of Jefferson was the first that took place in the city of Washington. The new president's first inaugural message announced the future policy of the Republican party to be careful fostering of the state governments, the restriction of the powers of the Federal government to their lowest constitutional limit, the immediate payment of the national debt and the reduction of the army, the navy, the taxes, and the duties on imports, to the lowest available point. Many of the Federalists believed that speedy ruin to the country would follow the advent of Jefferson to the presidency. He was "an atheist in religion and a fanatic in politics," and the vice president was only more tolerable because less known. The party which supported them, it was claimed, was composed of revolutionists, disorganizers and Jacobins. The Federalist party, which contained the larger portion of the intellect, wealth and culture of the country, honestly believed, no doubt, that the government had fallen into bad hands. But their fears were groundless. The president's first administration was marked by national prosperity. The principal offices of government were transferred to the Republican party, and executive pardons were issued to those persons who had been imprisoned under the alien and sedition laws. The supreme court, under the lead of Chief Justice Marshall, remained Federalist in complexion, and did a grand work for several years in interpreting and strengthening the constitution. President Jefferson instituted the custom of sending a written message to both houses of Congress as more befitting Republican simplicity, instead of giving the address in person, which had hitherto been the rule.

The Louisiana purchase.

162. The population of the United States was rapidly increasing, and was beginning to press forward into the Mississippi valley. In 1802 Ohio was admitted into the union; Mississippi and Indiana were already organized as territories, and a growing interest was felt in the western country. By a secret treaty with Spain in 1800, France had recovered the territory of Louisiana; the Spanish civil officers, however, were left in command, and in 1802 the Spanish intendant at New Orleans issued a proclamation closing the Mississippi to American commerce. This action threatened to result in war. Jefferson had opened negotiations with Napoleon for the purchase of the territory. The French emperor had at first refused to treat on the subject. He had acquired this territory with the vague intention of regaining the French ascendancy in America, which had been lost in the seven years' war. Knowing that whoever controlled the mouth of the Mississippi must become master of the whole valley, Jefferson proposed to buy New Orleans. Napoleon had refused this, also, but in 1803 the prospect of a renewed war with Great Britain made him change his mind. He knew that in case of war an English fleet would be sent to take possession of Louisiana, and that it would be impossible for the French to hold the port of New Orleans. He was determined that the place should not fall into the

hands of his powerful enemy, so he offered to sell it to the United States for fifteen million dollars. The president at once agreed to the proposition, though he believed that the constitution gave the Federal government no power to purchase foreign territory and make it a part of the union. In this instance, an article for the ratification of the purchase was prepared as an amendment to the constitution, but was never offered, as the president's action met with a general acquiescence and has since been imitated in similar instances without question. The Louisiana purchase included everything west of the Mississippi not already occupied by Spain, and comprised the whole or part of the present states of Arkansas, Colorado, Iowa, Kansas, Louisiana, Minnesota, Missouri, Nebraska, Oregon, the two Dakotas, Montana, Washington, Wyoming, Idaho, and the Indian territory. The effect of this great acquisition of territory, by such an active and prosperous people as the Americans, was to insure them the ultimate control of the continent without incurring any foreign warfare worth historic mention. It set the nation free for an indefinite length of time from European complications, but, on the other hand, it was the means of creating some new and formidable features in the rivalry between the free states and slave states.

The Tripolitan war.

163. The Barbary states on the southern shores of the Mediterranean were in the habit of sending out piratical vessels to prey upon the commerce of other nations and reduce their sailors to slavery. All the great powers of Europe, as well as the United States, had adopted the custom of paying tribute to these petty governments, in order to secure immunity for their trade. But these pirates grew increasingly insolent, so that the patience of the American government became entirely exhausted. A small fleet was sent out to the Mediterranean, which bombarded Tripoli. After a desultory warfare extending over two years, the Tripolitans sued for peace. The English government then followed the example of the United States, and in a few years more this abominable nuisance was suppressed.

In the latter part of 1803, during the first session of the VIII Congress, the manner of the presidential election was amended to the form which it has at present. The amendment having been ratified by the necessary number of states, this became the XII amendment to the constitution. Articles of impeachment were voted by the house against a federalist judge, Chase of Maryland, for arbitrary and oppressive conduct in trying cases under the alien and sedition laws. At the next session of Congress in 1804, Chase was tried and acquitted.

The XIIth amendment.

Hamilton and Burr.

164. In 1804 Jefferson was re-elected president, with George Clinton for vice-president, in place of Aaron Burr, who had separated from his party. The federalists then made Burr a candidate for the governorship of New York, but here, as in 1801, Hamilton used his influence against him, and Burr was defeated. Resenting this opposition, Burr contrived to force Hamilton into the acceptance of a challenge. They met on July 11, 1804, and Hamilton was killed. The mourning of the country over the loss of this distinguished man was intense, and the wretched Burr found that his public career was at an end. Bankrupt in fortune, and a fugitive from home, he visited New Orleans and other parts of the south and west (1805) for the purpose of arranging an enterprise whose exact object has never been positively discovered. He planned either the seizure of Mexico, or the establishment of a monarchy west of the Alleghanies. He was arrested by the federal government on a charge of treason, and was tried before Chief Justice Marshall in September, 1807, but after a long investigation he was acquitted in consequence of a defect in the chain of evidence. Afterward he became an outcast from society and died in obscurity.

Burr's conspiracy.

Jefferson's second administration.

165. On the 4th of March, 1805, Jefferson and Clinton were sworn into office. Jefferson's second administration was the beginning of a stormy period which ended in war. The wars of Napoleon still continued, and France and Great Britain were using every expedient to cripple each other without regard to the rights of neutral nations. In the beginning of these wars the United States, being a neutral power, had acquired a valuable foreign commerce, but this was speedily destroyed by the arbitrary measures of the belligerents. With his famous Berlin and Milan decrees, Napoleon sought to prevent neutral vessels from entering British harbors, and claimed the right to seize all vessels trading with England or her colonies (1806). England replied with her orders of council issued by the king, which forbade all commerce with the ports of Europe that were within the French dominion or in countries allied with France. If an American vessel touched at almost any port of continental Europe, the first British cruiser that came along deemed her its lawful prey; if she touched at a British port, she was liable to capture by the first French craft that she should meet. Jefferson had abandoned the policy which Adams had adopted of building a strong navy. He imagined it possible to defend American harbors by means of gunboats carrying each one gun, and had recommended this plan, which Congress adopted. This "Gunboat System" was always hateful to the navy, and was a constant object of federalist ridicule and attack.

The right of search.

166. While the offensive measures of England and France made American merchantmen a prey to both parties, England, in another respect, possessed a peculiar power of annoying the United States. She still claimed and exercised the right of stopping American vessels and seizing all sailors, even naturalized citizens, who were supposed to be British subjects. In June, 1807, the insolence of this claim was carried so far that the British man-of-war, Leopard, stopped the United States frigate, Chesapeake, off the entrance of Chesapeake Bay, fired into her, killing or wounding twenty-one of the crew, and took off four men, three of whom were Americans. President Jefferson demanded reparation for this outrage, and issued a proclamation ordering all British war vessels out of American waters. The British government was ready to disavow the act of the Leopard, but there was no willingness shown to make reparation. Feeling unprepared for war, the United States government had recourse to an exceedingly stupid and dangerous measure. The president recommended a bill by which American vessels should be prohibited from leaving foreign ports, and foreign vessels from taking cargoes from the United States, and all coasting vessels should be required to give bonds to land their cargoes in the United States. This was the celebrated Embargo Bill, which did more harm to American commerce than all the cruisers of France and England were able to do. It also intensified party feeling and even threatened the existence of the union.

Embargo bill.

Non-intercourse act.

167. As time went on the Embargo Act became so unpopular that before the close of Jefferson's second term many of his friends forsook him. A great pressure was brought to bear upon Congress to repeal the act. It passed in its place the Non-intercourse Act. This act prohibited trade with England and France so long as their obnoxious measures should be kept in force, but it allowed free trade with other countries.

Other events.

Among the other important events of Mr. Jefferson's administration were the passing of an act of Congress prohibiting the slave trade after January 1, 1808; the beginning of the United States coast survey, a valuable work which is still continued to the great credit of American science, and the application of steam to navigation by Robert Fulton. Jefferson refused to be a candidate for a third term, and at the election in 1808, James Madison, of Virginia, was chosen president

by the Republican, or, as it now began to be called, the Democratic party. Clinton was re-elected vice-president. The candidates of the Federalists were C. C. Pinckney and Rufus King.

Madison's administration

168. The Non-intercourse Act went into force March 1, 1809, when Mr. Madison succeeded to the presidency. He belonged to Jefferson's party and continued his policy. Party feeling had grown very bitter. New England, which suffered the greatest from the breaking up of trade, was the stronghold of the Federalists. They complained loudly that if it were not for the Embargo and Non intercourse Acts there would be no trouble. The southern and western people, who were principally Democratic Republicans, retorted that they had evidence of negotiations between the New England Federalists and England; that the Federalists were planning for a separation of New England from the union. This charge was indignantly denied, but it helped increase political hostilities. In 1810 Congress repealed the Non-intercourse Act, which had accomplished nothing in the way of intimidation. Congress then informed England and France that if either nation would repeal its obnoxious measures the Non-intercourse Act would be revived against the other. Napoleon was studying how he might get the advantage of England, and he withdrew, or pretended to withdraw, his decrees prohibiting commerce with England so far as the United States were concerned, but at the same time gave secret orders by which the decrees were to be practically enforced as harshly as ever. Congress at once revived the Non-intercourse Act against Great Britain alone.

Beginning of hostilities.

169. England and the United States grew more irritated with each other, and in 1811 hostilities actually began on sea and land. In May the United States frigate *President* hailed the British man-of-war *Little Belt* and was answered by a shot. The *President* then replied with a shot in turn, and a sharp action ensued in which the *Little Belt* was badly crippled, and lost thirty-one killed and wounded. Tecumseh, the famous Shawnee chief, had gathered a large number of warriors, and at the instigation of the British they were attacking the northwestern settlements. General Harrison marched against them, and on November 7 he defeated them at Tippecanoe. The English continued to seize vessels and men. More than nine hundred American vessels had been seized since 1803, and several thousand American seamen had been impressed into the British service. The people of the United States were exasperated at their losses and their inability to protect themselves. Madison wished to continue the general peace policy of Jefferson, but new leaders had sprung up in the Republican party who were in favor of war. Chief among these were Henry Clay, of Kentucky, speaker of the house, William H. Crawford, in the senate, and John C. Calhoun, of South Carolina, in the house. These became the recognized congressional leaders of the party. The economical and retrenching policy of Jefferson was abandoned, and preparations were begun for hostilities. Bills were passed to enlist men, to organize the militia and to enlarge and equip the army.

170. President Madison was given to understand that his nomination for a second term of office depended upon his adoption of the war policy, otherwise De Witt Clinton, of New York, would be nominated in his stead. The president accepted the conditions and on June 18, 1812, war against Great Britain was formally declared. It was soon learned that the British government had revoked the orders in council five days after the declaration of war, but this concession came too late. Even if it had come in time probably nothing short of an abandonment of the right of search and impressment on Great Britain's part would have proved satisfactory. The war feeling was by no means unanimous. The New England Federalists bitterly opposed it. The chief support came from the south and west, which felt less keenly the effect upon their prosperity, caused by the breaking up of commerce. Immediately after the declaration of war the Federalist members of Congress had published their protest against it in an address to their constituents. When requisitions were made by the president upon the governors of the different states for their respective quotas of troops, according to the act passed by Congress to embody the militia, the governors of Massachusetts and Connecticut refused to allow their militia to leave their states on the ground that it was unconstitutional for the Federal government to call out the militia except in case of an invasion or resistance to the laws of the United States, and neither of these had taken place. April 30, 1812, Louisiana was admitted into the union of states.

Declaration of war

The war of 1812.

171. The war opened by the invasion of Canada by General Hull, who was ordered to cross at Detroit and attack Fort Malden a few miles distant, but he was compelled to fall back again to Detroit. Here he was attacked by a large force of British and Indians under General Brock and Tecumseh. Believing he was not strong enough to defend the place he surrendered (August 16, 1812), not only Detroit, with its garrison and stores, but the whole territory of Michigan. Being exchanged, after some time he was tried by a court-martial on charges of treason and cowardice. He was acquitted of treason and was sentenced to be shot for cowardice, but was pardoned by the president on account of his past good services. In October another attempt was made upon Canada near Niagara. A small force crossed the river and attacked the British in a strong position on Queenstown Heights. At first the Americans were successful but were at last defeated with heavy loss.

Surrender of Detroit.

Queenstown Heights.

Naval exploits.

172. To compensate for these disasters on land the little American navy won imperishable glory on the ocean. The United States frigate *Essex*, Captain Porter, captured the British sloop-of-war *Alert* after a fight of eight minutes, without losing a man. The *Constitution*, Captain Hull commanding, fought a famous action with the British frigate *Guerrière* near the Gulf of St. Lawrence (August 19), and in less than an hour completely destroyed her. This victory dispelled the belief that the British navy was invincible, and the whole country was filled with transports of delight. On the 18th of October the sloop-of war *Wasp*, commanded by Captain Jones, captured the British brig-of-war *Frolic* off the coast of North Carolina, but the same day the British ship *Poictiers* took both the captor and her prize. On October 25 the frigate *United States*, under Commodore Decatur, fought a memorable action with the British ship *Macedonian*, which surrendered to Decatur after being nearly cut to pieces. This engagement took place off the Island of Madeira, but Decatur succeeded in carrying his prize to America. The *Constitution*, commanded by Captain Bambridge, in a two hours' fight off the coast of Brazil, knocked to pieces the British frigate *Java* (December 29), which lost 230 men and had to be burned, while the *Constitution* lost but twelve men and not a single spar.

173. During the first six months of the war the despised American navy, of which even the Americans expected but little, became the admiration of the world. Privateers also were very active, and before the end of the year the captures from the British numbered about fifty vessels of war, two hundred and fifty merchant vessels, and three thousand men. Under the impulse of these successes the Federalists, who had been opposed to the war, were beaten in the autumn elections, and Madison was re-elected president, with Eldridge Gerry for vice-president. The American disasters on land had led the government to collect a large army, which was placed under the command of General Har-

The re-election of Madison

The war in the northwest.

rison. He first made an attempt (January, 1813,) to recover Detroit and the territory of Michigan, but was driven back to Fort Meigs by Proctor, who besieged him there, but unsuccessfully. So much of the frontier was occupied by the great lakes that it was of the greatest importance to get control of these, and for this purpose, both British and Americans were busily engaged during the summer of 1813 in building fleets. Captain Oliver H. Perry directed the building of the fleet on Lake Erie, and sailors were sent forward from the seacoast. He had just completed nine vessels, which were at anchor in Put-In-Bay, when he saw the British approaching. He at once moved out to meet the enemy (September 10) and in a little more than two hours was able to send this dispatch to General Harrison, who was in command on the Sandusky: "We have met the enemy and they are ours; two ships, two brigs, one schooner, and one sloop." This victory turned the scale of war in the northwest. Harrison shipped his army across the lake in Perry's fleet, and attacking Proctor at the River Thames (October 5), inflicted a crushing defeat upon him. This was a severe blow to the Indians also, for their great leader, Tecumseh, was killed. The American success restored the northwestern territory to the country.

Battle of Lake Erie.

The Creek war.

174. In the spring of 1813 Tecumseh had visited and roused the Creek Indians of the southwest, and in August they took occasion to attack the frontier settlements, beginning with the terrible massacre at Fort Mimms, near Mobile. General Andrew Jackson, with the formidable Tennessee militia, marched into the Creek country, and won a series of telling victories, by which they were entirely subdued, and purchased peace by the surrender of two-thirds of their hunting grounds. In the meantime the British, after the defeat which they had suffered from the American navy in 1812, strengthened their Atlantic squadron. During the summer of 1813 they attempted to blockade the coast from Maine to Georgia. Congress, in turn, hastened to build new ships; and the courageous privateers continued to fight pluckily, and to bring prizes into the United States ports. In February, 1813, the American sloop *Hornet*, Captain Lawrence commanding, destroyed the British brig *Peacock*, which sank before all of her crew could be removed. On his return to the United States, Lawrence was promoted to the frigate *Chesapeake*, with which, on June 1, he had a severe engagement with the British frigate *Shannon* near Boston. Lawrence was mortally wounded at the beginning of the action. As he was carried below, he exclaimed: "Don't give up the ship!" The *Chesapeake*, however, was captured by boarding, after she had lost a large proportion of her officers and men. The *Argus*, Captain Allen, was captured by the British man-of-war *Pelican* (August 14), after a gallant fight in which Captain Allen received his death wound. Lieutenant Burrows, in the brig *Enterprise*, captured the British brig *Boxer* (September 5), after a short action. The frigate *Essex*, Captain Porter, made a brilliant and successful cruise during the year 1813, and did great damage to the British commerce. At length, however, she was attacked in March, 1814, by the British ships *Phoebe* and *Cherub*, and after the bloodiest fight of the war, the *Essex* was compelled to surrender. The sloop *Peacock* captured the British brig *Epervier* off the coast of Florida (April, 1814). The *Wasp* made a brilliant cruise, taking a number of British vessels. The old *Constitution*, Captain Stewart, engaged singly the British sloops-of-war *Cyane* and *Levant* off the coast of Portugal, and captured both in a remarkable night engagement, February 20. The *Hornet* captured the British brig *Penguin* in March, off the Cape of Good Hope, and in June, the *Peacock* closed the long record of victories by taking the British ship *Nautilus*. These last three actions took place after peace had been concluded.

Events on the sea.

On the Niagara frontier.

175. In the summer of 1814, the Americans made a fresh attempt to invade Canada under General Brown, with whom served Brigadier-General Winfield Scott. They crossed the Niagara river and in four hard-fought battles defeated the British at Chippewa (July 5), Lundy's Lane (July 25), and Fort Erie (August 15 and September 17), but in spite of these successes, they could not establish themselves in Canada, and retired across the line before cold weather came. In March, 1814, Napoleon was dethroned and sent to Elba, and the European war being over, England was enabled to spare more men for the war in America. Her policy was to march two armies into the United States. One was to descend from Canada by the route which Carleton and Burgoyne had followed, and the other was to land at New Orleans and move northward. To divert attention a fleet under Admiral Cockburn sailed up the Potomac and attacked the capital. There was scarcely any resistance, and the British wantonly destroyed public buildings, books and papers (August, 1814). Nothing was spared except the patent office and the jail. The British then moved upon Baltimore. General Ross and his troops were landed a few miles below the town, but the Americans gallantly repulsed them. Then the fleets bombarded the forts which protected Baltimore (September 12 and 13). Fort McHenry received the hottest fire from the fleet. It was upon seeing the flag still flying from the fort, when the smoke cleared away, that Francis S. Key wrote the national song, "The Star-Spangled Banner." The fleet finally abandoned the attempt and sailed away.

Capture of Washington.

176. The British in Canada, having been reinforced by the arrival of fresh troops from England, advanced with an army of fourteen thousand men under Prevost, to attack Plattsburg, on Lake Champlain, while a British squadron, under Captain Downie, sailed up the lake to co-operate with him. The Americans, under General Macomb, being only fifteen hundred strong, fell back behind the Saranac, and there made a vigorous defense. They had also a squadron of small vessels under Commodore Macdonough, and this was stationed at the entrance of Plattsburg bay. Captain Downie attacked Macdonough (September 11, 1814), at the same time that General Prevost attempted to force the passage of the Saranac, but the British fleet was annihilated by Macdonough and Prevost, beaten at every point by Macomb, retreated in disaster to Canada. But while this attempt on New York proved a failure, the British succeeded in seizing the unoccupied wilds of Maine east of the Penobscot river, and thus created a panic in New England.

Battle of Plattsburg.

177. The expedition against Washington was designed chiefly as an insult; the expedition against New Orleans was for conquest. If the British could gain this important position they would control the Mississippi and the western country. In December, a British army of 12,000 men under General Parkenham, landed below New Orleans. General Jackson hastened to that city with 6,000 militia to oppose him, and fortified the town as best he could. After a fortnight's siege the British determined to assault the American works. Early on the morning of January 8, 1815, they made the attack. Jackson's men, trained to rifle shooting and aided by artillery, met them with great coolness, and in less than half an hour the British were in full retreat, leaving Pakenham and 2,600 men behind them, killed or wounded, while the American loss was but 8 killed and 13 wounded. This battle also occured after peace was declared.

The war in the south.

178. Negotiations for peace had been begun in August, 1814. The American government was anxious for almost any honorable peace in preference to continuing the war with England. The latter country had revoked the orders in council long before, but still England's demands were such that they could not be accepted with honor by the Federal government. The war feeling was thus continued among the republicans,

and some of their leaders began to meditate measures which the strict constructionist principles of the party would not justify. Propositions were made to introduce the English system of impressment of seamen, and of allowing officers of the army to enlist minors over eighteen years of age without the consent of their parents or guardians. The Connecticut legislature ordered the governor to resist the execution of these and similar measures if they should become laws. In view of these things, and provoked by the British invasion of Maine, the legislature of Massachusetts had invited the other New England states to send delegates to Hartford, Connecticut, "to confer upon the subject of their public grievances." Delegates from Massachusetts, Connecticut and Rhode Island, and from parts of Vermont and New Hampshire, met at Hartford in December, 1814, to discuss the situation of affairs and decide upon the proper course to be pursued. Among other measures they recommended the adoption of several amendments to the constitution, chiefly with intent to restrict the powers of Congress over commerce, and to prevent naturalized citizens from holding office. As there was much secrecy in its proceedings a popular suspicion was aroused that a dissolution of the union had been proposed, perhaps resolved upon, in its meetings. This suspicion completed the ruin of the Federalist party. Some years afterward the journal of the convention was published in order to justify its members, and to show that no treasonable designs were officially proposed. It was then, however, too late to be of benefit to the party, for the popular opinion had become fixed.

The Hartford convention

179. The final negotiations for peace took place at Ghent, in Belgium, the commissioners on the part of the United States being John Quincy Adams, James A. Bayard, Henry Clay, Jonathan Russell and Albert Gallatin. The treaty was signed December 24, 1814, and promptly ratified by both governments. It was welcome to the administration, whose want of experience in the conduct of the war had involved the country in great financial straits. The treaty left things apparently just as they had been before the war. Nothing was said about the right of search and impressment of seamen, out of which the war arose, but the United States had shown to the European nations that she would not be insulted with impunity. The British ceased to enforce their claims, and hence the United States may be said to have succeeded in the object of the contest. England withdrew her claims to sovereignty. The nation was not only established in its own domain, but it had equal rights with Europe on the broad seas. The last vestige of subjection to the Old World disappeared when Decatur sailed into the harbor of Algiers in June, 1815. That country had again declared war on the United States. Decatur compelled the Dey to come on board his flag ship and sign a treaty renouncing forever all demands against Americans. The other Barbary States signed similar treaties, and from that time on American commerce became completely free.

Treaty of Ghent.

Algerine war

180. The close of the war marks the final downfall of the federal party. From this period the few remaining Federalists ceased from any united party action. There was but one party, whose principles consisted of a combination of those which had characterized the original Federal and Republican parties. The leading principle of the Federal party, the establishment and continuance of the Federal government, had been quietly adopted by the Republicans, while the Republican principle of limiting the duties and powers of the government had been as quietly accepted by the Federalists after the Republican party had come into power. In the presidential election of 1816, the Federalist candidate, Rufus King, received only 34 electoral votes against 187 for the Republican candidate, James Monroe. His administration lasted from 1817 to 1825, for in 1820 the Federalists put no candidate in the field, and Monroe, being nominated for a second term, his election was practically unanimous. His administration has been called the "Era of good feeling." People forgot the old quarrels in their joy at the end of the war and the revival of business. For a time the violent party feeling, which had flamed so high during the European strife, had quieted down. New occasions for political contest had not yet come. Congress occupied itself chiefly in the regulation of internal affairs. Taxes were reduced, and a slight increase was made in the tariff. The feeling was growing among the Republicans that the tariff ought to be so arranged as to afford protection to those manufactures which had been developed in the United States during the war, but were now suffering from a competition with the cheaper goods which were imported from England. But no action was taken on the subject.

Downfall of the Federal party.

The era of good feeling.

181. As has been stated, the charter of the national bank which had been granted during Washington's first administration, had expired in 1811, and the Republicans, then in power, had refused to re-charter it. The attempt to carry on the war by loans had resulted in almost a state of bankruptcy. In April, 1816, a bill was passed, granting a charter for a national bank to expire in 1836. It was modeled upon the one which the Republicans had formerly opposed. The Republican newspapers warmly advocated the scheme, and republished Hamilton's argument in favor of such a bank, thus showing how far loose constructionist ideas had spread in the Republican party. The bank was organized with a capital of $35,000,000, four-fifths of which might be in government stock. It was to have custody of the government revenues, but the secretary of the treasury was empowered to divert the revenues to other custodians, giving his reasons for such actions to Congress.

The national bank.

182. In 1817 hostilities broke out with the Seminole and Creek Indians of Spanish Florida, Georgia, and Alabama; General Jackson, being sent to the scene of disturbance, chastised the savages and destroyed their villages. Jackson, with all his admirable qualities, was not a cautious man. Satisfied that the Spaniards had incited the Indians to make war, he invaded Florida (April, 1818), and took possession of Spanish forts and built a fort of his own. Then he seized Pensacola and sent the Spanish troops and civil authorities to Havana. Though Jackson's high-handed measures were not fully sustained by Congress, yet, so popular was he, that instead of being reproved by Congress, he was regarded as a great hero worthy of warmest praise. Spain vigorously protested against these proceedings as a gross violation of neutrality, but she was too weak to offer any effectual resistance. The matter was finally arranged by the purchase of Florida by the United States for $5,000,000 (1819).

Trouble in Florida.

183. The growth of the nation was so rapid that for six years after the close of the war of 1812 a new state was added each year. Indiana was added in 1816, Mississippi in 1817, Illinois in 1818, Alabama in 1819, Maine in 1820, and Missouri in 1821. The population now numbered nearly ten millions; the public revenue had increased from five million dollars during the time of Washington to twenty-five million dollars. Since 1790 the government had granted patents to its inventors. A few had been granted prior to 1812, but after that the number increased rapidly. In 1836 the patent office was made a distinct bureau under the secretary of state, and a commissioner of patents was appointed at its head. The great coal and iron regions lying in the Appalachian range were now yielding their riches. Charcoal was formerly used in smelting iron, but in 1820 the ironworkers of Pennsylvania began to make experiments in mixing anthracite coal with charcoal. When it was found that anthracite coal could be used alone, the manufacture of iron received a new impetus,

Growth of the nation.

and increased rapidly. With a country so large, and with a population spreading in every direction, the urgent demand of western settlers for some quicker and easier mode of inter-communication and transportation led to a variety of plans to accomplish the end. Private companies and sometimes the state built roads and canals. The greatest of these public works was the Erie canal. Erie canal, which owed its execution chiefly to the energetic governor of New York, De Witt Clinton. It was begun in 1817, and opened for traffic in 1825. It extended across the state from Lake Erie to the Hudson, and was the largest canal in the world. When the enterprise was first undertaken, and until its completion, it was called "Clinton's big ditch," but it was one of the principal means by which the city of New York became the chief commercial city of the new world. This was before the locomotive had been perfected, so that steam railroads were not yet in operation.

Steamboats. 184. In 1807, Robert Fulton had invented the steamboat. In 1811 a steamboat was launched on the Ohio river at Pittsburg, and presently many like craft were traveling the western rivers, thus opening an easy means of communication between distant points. Just after the Erie canal was begun, a steamboat was built, which was the first to navigate Lake Erie. The next year the steamer *Savannah* crossed the Atlantic, went as far as St. Petersburg and returned. Six years later, when the Erie canal was finished, the steamer *Enterprise* went from America to India by way of the Cape Railroads. of Good Hope. In 1826 the first railroad in the United States was opened from Milton to Quincy, in Massachusetts. It was only two miles long, and was used for hauling granite, the cars being drawn by horses. In 1830 the first passenger railroad in America was opened, the Baltimore and Ohio Railroad, which was fifteen miles in length. The cars were at first drawn by horses, but with next year a locomotive was used. The construction of railroads now began in all directions, and during the next twenty years nearly ten thousand of miles were built. By the application of steam to industry, the discovery of large tracts of coal and iron ore, the invention of labor-saving machines, the communication by steam and railroad, the means were given to an energetic people for transforming the wilderness of the southern half of North America into a rich and prosperous country.

185. In its international relations the action of the government had become strong, quiet, and self-respecting. Mexico and the Spanish colonies of South America had revolted against Spain and established republics, and in 1822 President Monroe acknowledged them as independent nations. During the revolt it seemed likely that the "Holy Alliance" of Austria, Prussia, and Russia meant to assist Spain in bringing her revolted colonies to obedience. Great Britain had been gradually withdrawing her support from the alliance, and Canning, the new British secretary, determined to impress a check upon it by calling in the weight of the American government. A hint was given to the American minister, and in his annual message to Congress, in 1823, Mr. Monroe declared Monroe Doctrine. that "We could not view an interposition for oppressing them (the South American states), or in controlling in any other manner their destiny by any European power, in any other light than as a manifestation of an unfriendly disposition towards the United States." This statement announced the great fact that "the American continents are not to be considered as subjects for future colonization by any European power." This principle, so boldly declared, became known as the "Monroe doctrine," and, having the full sympathy of England, it proved effectual. The attitude of the national mind implied in such a declaration showed that our period of national weakness had come to an end.

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and increased rapidly. With a country so large, and with a population spreading in every direction, the urgent demand of western settlers for some quicker and easier mode of inter-communication and transportation led to a variety of plans to accomplish the end. Private companies and sometimes the state built roads and canals. The greatest of these public works was the Erie canal. Erie canal, which owed its execution chiefly to the energetic governor of New York, De Witt Clinton. It was begun in 1817, and opened for traffic in 1825. It extended across the state from Lake Erie to the Hudson, and was the largest canal in the world. When the enterprise was first undertaken, and until its completion, it was called "Clinton's big ditch," but it was one of the principal means by which the city of New York became the chief commercial city of the new world. This was before the locomotive had been perfected, so that steam railroads were not yet in operation.

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to return to the old system of control by State legislature. The war of 1812 had made it difficult to obtain manufactured goods from abroad, and many needed articles had begun to be made in the United States. After the war was over, American manufacturers wished to continue their business, but as they could not compete successfully with English manufactured goods, a higher protective tariff was thought necessary. In 1816 a tariff was instituted which imposed a duty of about twenty-five per cent. on imported cotton and woolen goods, and specific duties on iron imports. The English manufacturers made far more cloth than could could be used in England alone, and they sold it to other countries. They could make the cloth better and more cheaply than it could be made in the United States. The people of the United States, therefore, would prefer to buy it of England rather than of the American manufacturers. Now England had established herself in India, and received at first most of her cotton from that country. She wished to favor her own merchants, who brought the cotton from India, and therefore she laid a tax upon the cotton from the southern states. Then the south began to send her cotton to the north, where they could sell it without paying duties, and favored a heavy duty on all cotton goods brought from England. By this means they thought, that Northern manufacturers could make up their cotton into goods which would cost the buyers less than English goods of the same kind. They reasoned thus: If the cotton has to travel across the Atlantic, pay a tax there, be made into cloth, cross the Atlantic again, and then pay a heavy duty at the custom-house, it will cost the merchant who buys it so much that he when he sells it he must ask a higher price than for the cloth made perhaps in the next town to him. So the customer will buy the native cloth. This tariff on European goods, therefore, was called a protective tariff, because it was intended to protect the American planter and manufacturer. At first the northern people did not favor it. Their business was much more in ships than in mills; and if the tariff prevented the importation of European goods, their vessels would not be of much use.

Tariff of 1816.

193. There was nothing new in the principle of the protective tariff. As has been shown, Hamilton had urged it at the beginning of the government, and it was the method used by many countries for the protection of their own industries. But the tariff of 1816 in the United States came at a time when it had a marked effect in the history of the people. If the United States could manufacture its own goods from its own products, and sell them to its own citizens, then one part of the country would help another, and the whole union would prosper together. Thus the tariff fell into its place as one of the plans adopted by the country when it settled down to the work of possessing the land and improving it. But as time went on, the south, which had at first favored a protected tariff to ensure the sale of her cotton, now began to oppose any further increase of duties on foreign goods. Thus in 1822, a proposition for making the tariff more protective was defeated by the southern section in Congress. The tariff of 1824 was adopted by very small majorities. It was an advance on all preceding tariffs in its consistent design of excluding foreign competing goods from American markets. It was passed by the northern members, except those from the northeast, against the almost unanimous vote of the southern members, who considered it unconstitutional, sectional, and unjust. In 1828, the Protectionists, as those who favored a high protective tariff were now called, succeeded, after a debate of six weeks, in passing another tariff bill which was so protective as to be satisfactory to manufacturers but very objectional to the southern states, where it was pronounced a legalized robbery. From this time, the nullification doctrines of the Kentucky resolutions of 1799 began to gain strength rapidly in the south.

Tariff of 1824.

194. In the presidential canvass of 1828, the two factions of the great Republican party now assumed the character of two distinct and opposite parties. The supporters of Jackson assumed the name of Democrats, while the opposition, which favored the re-election of Adams, were known at first as National Republicans. But in the course of Jackson's administration, as they saw fit to represent him as a kind of a tyrant like George III, they assumed the name of Whigs; and henceforth, until 1854, Whig and Democrat were the names of the two great political parties in the United States. Without entering into a detailed history of these parties and their principles, it may be said in general that the questions which have divided them have been concerned with the powers of the national government. The Whigs wished to give the Federal government the power to use the public money in the making of roads, improving rivers and harbors, etc., under the general head of *Internal Improvements;* the Democrats claimed that these things ought to be done by the states or by private enterprise. The Whigs espoused the policy of laying duties on imports as high as revenue results would approve; within this limit the duties were to be defined for purposes of protection; and the superabundant revenues were to be expended on internal improvements. This was known as the "American system." This policy was opposed by the Democrats, but not always intelligently. The Whigs also favored the continuance of the national bank which had been chartered in 1816. The Democrats strongly opposed it, and on the question they achieved a complete and decisive victory under President Tyler. On the question of internal improvements, however, the opposite still holds the ground, but most of its details have been settled by the great development of the powers of private enterprise during the past sixty years, and it is not at present a leading question. The question of the tariff, however, remains to-day as a "burning question," but it is no longer argued on grounds of constitutional law, but on grounds of political economy.

Whigs and Democrats

The "American System."

195. In the presidential canvass of 1828 Jackson was elected president, with John C. Calhoun as vice-president, and on March 4 they were sworn into office. The eight following years have been called "the reign of Andrew Jackson," from the arbitrary methods which he seemed to assume in regard to money affairs in his administration. One of the greatest mistakes of the president was the use of government offices as rewards for his friends and adherents. As early as the beginning of the present century a vicious system was growing up in New York and Pennsylvania. In those states the appointive offices came to be used as bribes or as rewards for partisan services. By securing votes for a successful candidate, a man with little in his pocket and nothing particular to do, could obtain some office with a comfortable salary. It would be given him as a reward for political services, and some other man, more competent than himself, would have to be turned out in order to make room for him. A more effective method of driving "good citizens" out of politics could hardly have been devised. The result was that the civil service of those states was seriously damaged in quality, politics degenerated into a wild scramble for office, salaries were paid to men who did little or no public service in return, and thus the line which separates taxation from robbery was often crossed. About the same time the idea obtained that there is something especially democratic, and therefore meritorious, about "rotation in office." Government offices were regarded as plums at which everyone ought to be allowed a chance to bite. The way was prepared in 1820 by W. H. Crawford, of Georgia, who succeeded in getting the law enacted which limits the

Andrew Jackson president.

Origin of the "spoils system."

"Rotation in office."

terms of office for postmasters, revenue collectors and other servants of the Federal government to four years. The importance of this measure was not understood, and it excited very little discussion at the time. After Jackson obtained the presidency the methods of New York and Pennsylvania were applied on a national scale. Jackson cherished the absurd belief that the administration of his predecessor Adams had been corrupt, and he accordingly turned men out of office with a keen zest. During the forty years between Washington's first inauguration and Jackson's the total number of removals from office was seventy-four, and out of this number five were defaulters. During the first year of Jackson's administration the number of changes made in the civil service was said to be 2,000.

The "spoils system" made national.

Such was the abrupt inauguration upon the broadest scale of the so-called "spoils system." The phrase originated with W. L. Marcy, of New York, who in a speech in the senate in 1831 declared that "to the victors belong the spoils." The author of the phrase did not of course realize that he was making one of the most infamous remarks recorded in history, and Jackson doubtless would have been greatly surprised could he have foreseen that he was introducing a gigantic system of political knavery and corruption, which would help sustain all manner of abominations, from grasping monopolies and civic jobbery down to political rum shops.

The United States Bank.

196. Jackson made another mistake which, however, was trivial compared with the adoption of the spoils system. He was bitterly opposed to the United States bank because he believed that it was unauthorized by the constitution and a means of political corruption. As the charter was about to expire in 1836 he urged Congress not to renew it. An angry controversy followed. A bill renewing the charter passed in 1832, but Jackson vetoed it. Subsequently he recommended that the public money should be removed from the bank, and when Congress refused to consent to this measure he took the responsibility of ordering the secretary of the treasury to remove it (1833), a measure which, at first, was followed by great distress among merchants. It was in this quarrel that the supporters of the bank became known as Whigs, while the partisans of the president kept the old name of Democrats. The bank was finally closed in 1836 when its charter expired.

Indian troubles.

197. In 1832 hostilities with the Sac and Fox tribes of Indians broke out in what is now Wisconsin. Their chief, Black Hawk, was captured, and the Indians were removed beyond the Mississippi. Georgia wished to get rid of the Creeks and Cherokees remaining within the state; but they refused to go. The United States had made treaties with them and these treaties acknowledged the right of the Indians to the land which they held. They were more civilized than the Indians in general and had farms which they cultivated. A few of their chiefs were persuaded to sign a new treaty with Georgia, giving up their lands. The other Indians at once put them to death; they declared that these chiefs had no authority to sign for the tribes, and that in consequence there was no treaty. Georgia would not wait for the Indians to yield but ordered a survey of their lands to be made for settlement by the whites. It must be remembered that although the territory was within the boundaries of Georgia it was yet distinctly under the control of the Indians by agreement with the United States. The federal government was very desirous of getting the Indians out of Georgia, and tried every means to persuade them to leave, and accordingly in a tacit manner suffered the state to crowd the Indians out. It was no less true that the state was taking to itself a power which belonged to the union. The wrangle over the Indians began in the administration of John Quincy Adams, and continued after Andrew Jackson was chosen president. Jackson had no love for the Indians, having fought them all his life, and he did not now interfere. Georgia had her own way, and the doctrine of state sovereignty was more firmly held than ever.

Nullification.

198. At this time the southern people felt themselves to be Virginians, Carolinians, Georgians, rather than American citizens. They were brought up through this feeling of undue loyalty to their native states to have a secondary regard for the national union, and because possessed of an institution which they were anxious to maintain, they were necessarily fearful of the influence of an entirely free government. Since slavery could be sustained only by state law, in opposition to the spirit of the age, the state must be made so sovereign as to be able to withstand all national interference. To make sure of this result at the time now before us, some of the prominent southerners met on a certain occasion to try the temper of President Jackson by an attempted defiance of the national authority. But the indignant and determined response of the president checked for a moment their designs, few men daring any longer to follow to their ultimate conclusions the teachings of the great southern leader, John C. Calhoun; and so, for nearly two years, but little opposition was openly undertaken. Calhoun, however, never ceased his plotting; and in 1832, such had been the progress of his plans, that he deemed himself strong enough to carry his state-rights doctrine triumphantly through, in spite of the known hostility of the patriotic Jackson. Congress, as will be remembered, had enacted a tariff of a mixed character, mainly for revenue, but incidentally protecting some of the manufacturing interests of the northern states; and among the articles thus protected were coarse woolen goods, which were used in the south as clothing for its slaves. The price of those articles was thus made a trifle higher than it would have been without this protection; and the slave holders, always a unit for the state-rights doctrine, had to pay this higher price. The north was all the while under the same tariff, paying an increased price for cotton on every yard of imported cloth. This was not considered by the south, and so in 1832, a state convention in South Carolina declared the tariff acts unconstitutional, and therefore null and void, and resolved that any attempt to collect the duties at any port in that state should be resisted by force of arms. Preparations were also made to take South Carolina out of the union. "Nullification" was the name given to this act by which the state declared certain laws of the general government to have no force in her territory

199. The 1st of February, 1833, in case Congress did not repeal its protective system prior to that date, was fixed upon as the limit of the state's forbearance; for after that day, South Carolina, in the event of the non-compliance of the United States with her sovereign pleasure, was to consider herself as forming no part of the Federal union. All she desired, she said, if her demands were refused, was "to be let alone," when she would proceed to govern herself, according to the alleged Jeffersonian doctrine, as an independent state. The excitement was intense all over the union. Webster was in the senate and General Jackson in the presidential chair, and they worked together, though opposite in their party connections, like twin brothers, for the salvation of their common country. Webster pleaded for the union, claiming that the constitution was not a "compact of states," but a "nation," created by the whole people for their collective government and benefit. In the course of controversy in the senate, he held his famous debate with Mr. Hayne, lasting for several days, and presented the arguments against the right of secession with an eloquence and force never equalled in any discussion on that question. President Jackson firmly believed that the states should manage their own affairs but he also held that when laws were passed in Congress for the whole country,

Webster and Hayne.

no one state had a right to refuse obedience to such laws. He declared that "the Federal union must and shall be preserved," and sent an armed fleet to Charleston harbor, warning South Carolina at once that, if she resisted, the whole force of the union would be used against her. For a while it looked as if there would be a resort to arms, but Clay, who was the leader of the Protectionists, came forward and proposed a compromise by which the tariff was modified. South Carolina had won her point. The doctrine of nullification had not been put to the test of arms; but the doctrine of state sovereignty had established itself more firmly at the south.

200. After the fall of the United States bank many state banks had been formed, often with little capital, to supply the expected need of paper money. These banks issued notes which were largely used in the purchase of public lands from the United States, and the treasury was accumulating paper currency of doubtful value. Soon after Congress had adjourned, the president directed the secretary of the treasury to issue the so-called specie circular, ordering the United States agents to receive in future only gold and silver in payment for lands. The demand for specie at once became pressing, and could only be met by the banks in which the revenue was deposited. Other banks fell into difficulties which culminated in the great "panic of 1837," which took place under Martin Van Buren's administration. General Jackson having served two terms, was succeeded by Mr. Van Buren, who became president on March 4, 1837. The administration of Mr. Van Buren (1837–41) was occupied chiefly with efforts to remedy the commercial disasters of the nation. The new president had taken Jackson's cabinet, and had declared his purpose "to follow in the footsteps of his illustrious predecessor." He, therefore, caught the first full effects of the storm produced by Jackson's financial policy, from which even Jackson's popularity and admitted honesty would hardly have saved him. A spirit of reckless speculation had been excited by the excessive amount of paper money in circulation, and property had acquired a fictitious value. Most of the banks which were not lucky enough to have government deposits at command went down under the specie circular of 1836. The "pet banks" which had received the deposits of the public money, had used them as loans to business men, and now, when a sudden demand for those deposits was made, many of these banks also were involved in the general ruin. The sudden calling in of these loans was the beginning of this famous panic of 1837, the counterpart of which had never before been seen in the United States. Early in May the banks of New York city refused to pay gold or silver for their notes, and the New York legislature authorized a suspension of specie payments throughout the state for one year. This was followed at once by the suspension of banks in other cities. The president by proclamation (May 15) called an extra session of Congress, to met September 4, and consider and secure the financial interests of the government. Meanwhile the panic continued during the summer of 1837, causing widespread ruin among banks, corporations and business men, and violently reducing nominal fortunes to far less than their real value.

Specie circular.

Martin Van Buren president.

The panic of 1837.

201. Finally, after some vicissitudes, the financial difficulties of the nation were satisfactorily adjusted by the adoption of one phase of the National Bank question, that of the so-called sub-treasury system which was ultimately established in 1846 and has been in force ever since. By this system the public revenus are not deposited in any bank, but are paid over on demand to the treasury department by the collectors, who are required to give bonds for the proper discharge of their duty. The establishment of this system was creditable to Van Buren's administration, but the country was not prosperous during his term of office, and he was defeated as a candidate for re-election (1840) after a remarkably exciting canvas. The Whigs relying upon the same kind of popular feeling which had elected Jackson, again put in nomination the plain soldier, Harrison, who had been Van Buren's opponent in the preceding canvas, and who had lived in a log cabin and had hard cider on his table. In the famous "hard cider campaign" of 1840, Harrison won a sweeping victory, obtaining 234 electoral votes to Van Buren's 60. John Tyler, of Virginia, a Democrat in politics, was elected vice-president. The election of Tyler was a political mistake on the part of the Whigs, for in one month after his inauguration, President Harrison died, and Tyler succeded to the presidency. Thus the government had a Democratic head, and the Whigs lost, in the main, the fruits of their victory.

The sub-treasury system.

The "hard cider" campaign.

202. Mr Tyler retained Harrison's cabinet, and promised to carry out his policy. In an extra session of Congress beginning May 31, a bill to abolish the sub-treasury of the previous administration was passed by both houses, which now had a Whig majority, and was signed by the president. Both houses then passed a bill to incorporate the fiscal bank of the United States. Many of the objectionable features of the old United States bank had been discarded; but the measure still met with great disfavor among the Democrats. The bill was vetoed by the president. He stated as his objection, that the powers given to the bank were such as he and the majority of the people believed to be unwise and unconstitutional to grant. An effort was made to pass the bill over the veto by a two-thirds vote, but it failed. The Whig leaders then requested the president to present them with an outline of a bill which he would be willing to sign. After consultation with the cabinet it was given, and passed by both houses. The president vetoed this bill also. A two-thirds vote could not be obtained to pass it over the veto. This action of the president in vetoing a bill which had been drawn according to his own suggestions, roused the indignation of of the Whigs who had elected him, and all his cabinet resigned. Daniel Webster, however, the secretary of state, retained office long enough to finish a negotiation with Great Britain for the settlement of a dispute regarding the northwestern boundary.

Tyler's administration.

203. The northwestern corner of North America down to the parallel of 54° 40′, now known as the territory of Alaska, then belonged to Russia. The region known as Oregon, which lay between Russian America and California, was claimed by the United States on the ground of the discoveries of Lewis and Clarke. After the second war with England, when both countries claimed this region, it was agreed in 1818 that they should hold it jointly for ten years. The Hudson Bay Company, which was fully equipped for the fur trade, increased its stations. At the end of ten years it seemed to have almost entire possession. In 1828 it was agreed to continue the joint occupation until notice of its termination should be given by one nation or the other. When this agreement was renewed St. Louis was the great center of the fur trade of the west. Expeditions from that point into the disputed territory soon became common. The hunters brought back word of the fine farming and grazing lands which they had seen, and parties of emigrants began to make settlements in that direction. The Hudson Bay Company put every possible obstacle in the way of immigration, as they had wished to keep the country for hunting and trapping. They managed to create the impression in the United States that the Rocky Mountains could not be crossed by wagons, and that the country on the other side was a barren wilderness. In 1836, Dr. Marcus Whitman was sent out with a company of missionaries to the Oregon Indians. He was a man of energy and foresight. He saw that it was practicable for emigrant trains to cross the mountains by good passes, and he

Oregon.

knew that if he could make this generally known the people of the United States would soon occupy the country.

204. When Lord Ashburton came in 1842 to settle with Mr. Webster the boundry line between the British possessions and the United States, the Hudson Bay Company had succeeded in keeping out almost all American emigrants. They had laid their plans also to bring in English settlers from the Red river country, so as to strengthen the British claim to all Oregon. As soon as Dr. Whitman learned this, he set out in October of that year, and made his way across the entire continent to Washington. There he found that a treaty had been signed, but that Oregon had been left out of consideration altogether. Dr. Whitman's errand was to make known to the administration at Washington the value of Oregon, and then to organize companies of emigrants to settle within its bounds. He did both. In the following summer he had a great body of settlers over the mountains, and at the close of 1844 there were three thousand Americans in Oregon. The people were fast deciding the question of ownership. Congress now took up the matter in earnest. The American people claimed the whole western territory, and the Democrats went into the next presidential campaign with the alternative war-cry "Fifty-four, forty, or fight," meaning that the parallel of 54° 40′ must be made the northern boundary. But the wiser men were ready to compromise, and a treaty was made with Great Britain in 1846, by which the forty ninth parallel was made the dividing line west of the Rocky Mountains.

"Fifty-four forty or fight."

205. In 1842 an affair known as "Dorr's Rebellion" occurred in Rhode Island. The state was still governed under the old colonial charter, and a party led by Thomas Dorr was anxious to exchange it for a new constitution giving greater power to the people. Dorr assumed to be governor by the votes of his partisans; the lawful governor, under the charter, called for the assistance of the United States, and civil war was imminent, when President Tyler sent troops into the state to uphold the old government. Dorr was convicted of treason and sentenced to imprisonment for life, but he was soon pardoned, and a more liberal constitution was afterward adopted.

Dorr's rebellion.

206. Calhoun was steadily teaching the southern states that their safety lay in the doctrine of state sovereignty, and the slaveholders were beginning to think that the union was not worth much to them unless it protected the slave system. Meanwhile, a very different belief was becoming common in the north, which was largely due to the influence of William Lloyd Garrison, of Massachusetts. He had established a weekly paper in 1831, called *The Liberator*, which was devoted to the entire and immediate abolition of African slavery in America. Many others, men and women, came forward to support him, and in 1833 the National Anti-Slavery Society had been formed, and its branches had multiplied rapidly. The renewal of the slavery question alarmed the southern people and also many of the northern people, who considered any attack upon slavery dangerous to the peace of the union. From this time dates the existence of the party opposed to slavery in the United States, at first known as abolitionists. They did not, however, constitute a political party, but as individuals kept up an incessant attack upon the evil of slavery. They were persecuted in every way possible, but every attempt to intimidate them only gave a new opportunity for the discussion of the rights and wrongs of the slave. The slaveholders and their friends at the north declared that the abolitionists were destroying the peace of the country, and charged them with inciting the slaves to insurrection. Hence they called upon all friends of the union to put them down. Finally mob violence was resorted to in Boston and other northern cities to destroy abolition printing presses, break up abolition meetings and silence abolition orators.

Opposition to slavery.

The abolitionists.

Mob violence.

207. These lawless outrages only served to fire the zeal of the abolitionists, and they began to offer petitions to Congress to abolish slavery in the District of Columbia, while the dissemination of abolitionist books and papers was greatly increased in every part of the country. Congress in 1835 had resolved to lay all future petitions on the subject of slavery upon the table. In 1836 the president's message to Congress made indignant reference to the practice of sending abolition documents through the United States mail. He recommended a bill to prohibit the practice in future. Accordingly, a bill was introduced in Congress, prohibiting any postmaster from knowingly putting any abolition documents or newspapers into the mails. The bill was rejected. The right of petition has been a right always held sacred by the people, and a champion for this right appeared in John Quincy Adams, who had been sent back to Washington as a representative from his district in Massachusetts. He presented these petitions again and again. The slavery party refused to admit them, and in consequence multitudes of people at the north were gained over to the anti-slavery side.

Petitions to Congress.

208. The political parties had not yet openly divided on the question of slavery, but the opposition to the Democratic party had become firmer, which resulted, as has been shown, in the formation of the Whig party (1836). Since Missouri had been admitted into the union two other states had been formed, Arkansas in 1836 and Michigan in 1837. Half of the states were now free states and half slave. But in population the free states were rapidly gaining on the slave states. In 1830 they exceeded them by over a million; in 1840 the excess was nearly two and a half millions. Moreover, after the admission of Arkansas, Florida was the only territory which could be admitted as a slave state, whereas the north had still a vast space westward at its command. To southern statesmen it seemed likely that the north would presently far exceed the south in territory, population, wealth and political power and would steadily gain a majority in the senate and the house. It was, therefore, probable that before long the north would come to control the action of Congress, and might then try to abolish slavery. This the south naturally dreaded, and this feeling of dread was intensified and exasperated by the abolitionist agitation. The only safeguard for the south seemed to be the acquisition of fresh territory, and southern statesmen looked for this to the great country of Texas, which lay south of 36° 30′, was suited to the institution of slavery and was already occupied by many southerners.

Arkansas and Michigan.

209. Texas was originally a part of the Spanish province of Mexico. In 1821 Mexico revolted from Spain, and formed a republic moulded after the United States. Like other Spanish states in America it abolished slavery. The south thus had for its neighbor a free country hemming it in on the south and southwest. Presidents John Quincy Adams and Jackson each had made the attempt to buy Texas from Mexico, but she had refused to sell. Meanwhile emigration had set in from the southwestern states, and many Americans had made their home in Texas. The most noted of these was General Sam Houston, the leader of an adventurous set of men. At his instigation Texas rebelled against Mexican rule, and, in the decisive battle of San Jacinto (1836), won her independence and set up a government of her own with Houston at the head. Texas then applied for admission to the union. The importance of such an addition was seen at once. Out of this vast territory five states could be formed. If slave states they would greatly strengthen the slavery party. The whigs, under Webster and Clay, opposed annexation on the ground that it would bring on a war with Mexico, which had not acknowledged the independence of Texas. The ques-

Annexation of Texas.

tion of annexation was hotly discussed in the presidential election of 1844. Van Buren, who had opposed annexation, was rejected by the democratic party, and James K. Polk, of Tennessee, who favored annexation, was nominated. The whig candidate was Henry Clay; and there was a third candidate, which decided the result of the election. The abolitionists had put forward James Birney as a presidential candidate in 1840, who had received very few votes. They now nominated him again. A close and bitter contest followed. The democratic party was committed to the annexation of Texas, although the demand for the tariff of 1842, and for "the whole of Oregon or none, with or without war with England" helped to gain votes. Nevertheless the success of the Whigs seemed probable, until the weakness of Clay's moral fibre ruined it. He wrote a letter in which he tried to conciliate southern Democrats by saying that he would be "glad to see" the annexation take place at some future time. By this device he won no democratic votes, for Polk was a warm advocate of annexation, but angered a great many anti-slavery Whigs, who purposely threw away on Birney their votes, by which means New York was carried for Polk, and he was elected president. It was the most closely contested election in the history of the United States, except those of 1800, 1876 and 1884. The result in fourteen of the twenty-six states was doubtful for some days, and most of these chose Polk electors by very slender majorities. In several of them the small abolition vote would have turned the scale and chosen Clay electors. Thus Polk was elected, and, in December, 1845, Texas was annexed by resolution of Congress, and admitted into the union (December, 1845) with the understanding that it might be hereafter divided, so as to make several slave states. Florida had already been admitted as a state in March of the same year. In spite of the strong opposition to the annexation by the anti-slavery party there was a general feeling of pride that the country had acquired so large an addition to its domain. Politicians in favor of annexation did their best to draw the popular mind away from the question of slavery, and to hold out splendid prospects of the rapidly increasing United States. They began to aver that it was the "manifest destiny" of the nation to possess the whole continent. But the slavery question could not be held in abeyance. With the election of Polk the north and south were finally arrayed in opposition to each other. The policy of the Democratic party now began to be shaped chiefly by the adherents of Calhoun, the representatives of slavery and nullification, though the latter political heresy was not likely to be pushed to the front so long as the control of the federal government was in their hands; but the slavery question became the "burning question" from that time on until it was decided by the civil war.

The Mexican war.

210. When Texas was annexed to the United States, Mexico was so occupied with intestine dissensions and revolution that her exhibition of resentment was at first confined to a formal protest, and the withdrawal of her minister from Washington. No aggressive movement was made by her even when the United States troops under General Taylor occupied the east bank of the Nueces river, a part of the state which Mexico insisted had never belonged to Texas. In the meantime, in anticipation of trouble, a naval expedition had been sent by the American government to the gulf, December 31, 1845, and an act passed extending the United States revenue system over the doubtful territory beyond the Nueces river, to carry out which a revenue officer was appointed to reside in the new district. Even then Mexico did not institute hostilities, but expressed her willingness to negotiate concerning the disputed territory between the Nueces and the Rio Grande. In March, 1846, General Taylor was ordered by the president to advance from the Nueces to the Rio Grande, and occupy the debatable district. These measures, adopted by the president, by which our troops crossed the boundary claimed by Mexico, were considered by a large portion of the people of the United States as impolitic, if not unjust, and the occupation of a territory by our troops, which at least was a subject of dispute, was deemed by many a belligerent act. General Ampudia so considered it, and notified the American general to retire beyond the Nueces within twenty-four hours. In April General Arista superseded Ampudia in command, and communicated to Taylor that he considered hostilities commenced. Early in May Arista, with 6 000 Mexicans, crossed the Rio Grande, attacked General Taylor with his force of 2,300 at Palo Alto, and was badly defeated. The next day Taylor assumed the offensive, attacked Arista at Resaca de la Palma, and compelled him to retreat in haste across the Rio Grande.

War declared.

211. The United States government, before it could hear of these actions, declared war against Mexico (May 13, 1846), and called for 50,000 volunteers. Mexico likewise declared war against the United States for interfering in her affairs with Texas. Soon after the declaration of war, Colonel Stephen W. Kearney was ordered to lead an expedition into New Mexico for the purpose of separating that province from Mexico. Leaving Bent's Fort, he followed what was known as the Santa Fe trail, along the Arkansas river, across the Colorado mountains to the Rio Grande, and down that river to Santa Fe. Here he took possession of the country in the name of the United States, declaring New Mexico a territory of the Union, and left a governor and some troops. Then he set off for California, to carry out the same design of separating a Mexican province from the Republic of Mexico and attaching it to the United States. Before war was declared Captain John C. Fremont was sent on an exploring expedition to California. Some vessels of the navy also were sent to the Pacific coast to be in readiness. The United States had reason to think that England would make an excuse of the Mexican troubles to set up a claim to California. Fremont and his men, aided by officers of the navy with marines, made no delay when they learned that war was in progress. They easily took possession of one village after another. They expelled the Mexican soldiers, and finally seized Monterey, the capital of the province. There were a number of American settlers there, who proceeded to declare the independence of California and organize a government.

Expedition into New Mexico.

Fremont in California.

Doniphan's expedition.

212. When Colonel Kearney left Santa Fe, he ordered Colonel Doniphan, with about a thousand volunteers, to chastise the Navajo Indians. Having performed this duty and compelled the savages to make a treaty of peace, Doniphan marched a thousand miles to join the army in Mexico. At Bracito, December 25, 1846, he defeated a large force of Mexicans, and near Chihuahua, Feburary 28, gained a decided victory over an army four times as large as his own. Finally he reached General Wool, at Saltillo, May 22, after a march which is considered as one of the most brilliant exploits of the war.

213. In the meantime Taylor had conquered the northern portion of Mexico; while Scott, landing at Vera Cruz, advanced and captured the City of Mexico. The United States soldiers were victorious over the Mexicans wherever they came into conflict, and whatsoever the disparity of numbers, as instanced in Doniphan's victory; while at Buena Vista, February 22, 1847, Taylor routed a Mexican army more than four times greater than his own. To the student of history the Mexican war will have great interest, as having been the school in which most of our great generals, who made their mark in the civil war, received their practical training. The capture of the City of Mexico (September 14, 1847), put an end to the war. A treaty was entered into with Mexico, by which the Rio Grande was made the southwestern boundary of the United

States, and the Gila river the northern boundary of Mexico. The United States paid Mexico $15,000,000 for the territory which was thus added to its domain, exclusive of Texas. Five years later, the United States bought the Mesilla valley, south of the Gila river, for $10,000,000. General James Gadsden was the agent in this purchase. By these two cessions Mexico transferred to the United States the country now comprised in California, Arizona, Nevada, Utah, and parts of Wyoming, Colorado, Kansas, and New Mexico.

The Gadsden purchase.

214. This immense acquisition of territory, though a fortunate one in many respects, had an immediate effect upon American politics far more disturbing than anything which had occurred since 1820. The general sentiments of the anti-slavery party had been opposed to the war, and these sentiments had been fully set forth in a series of remarkable political poems entitled, "The Biglow Papers," by James Russell Lowell. The sectional strife which had been allayed for the time being by the Missouri Compromise, now began to be renewed. In the new territory acquired from Mexico, slavery had been forbidden by the Mexican law, and the north desired this prohibition kept in force, but the south opposed the idea. It was proposed by some, as the simplest solution of the difficulty, to prolong the Missouri Compromise line from the Rocky mountains to the Pacific, but neither party was willing to give up so much to the other. The increased opposition to slavery in the north had created an increased obstinacy in the south, so it was rapidly becoming a difficult thing to effect compromises between the two sections. In 1846, David Wilmot, a Democratic member of the house, from Pennsylvania, offered an addition to a bill, making appropriations for the purchase of the Mexican territory. This addition was the celebrated "Wilmot Proviso," applying to any newly acquired territory the provision of the ordinance of 1787, "that neither slavery nor involuntary servitude shall ever exist in any part of said territory, except for crime, whereof the party shall be first duly convicted." The Whigs and northern Democrats united in favor of the proviso, and it passed the house, but was sent to the senate too late to be acted upon.

The Biglow Papers.

The Wilmot Proviso.

215. In the same year that peace was made with Mexico (1848) came the presidential election. Several efforts had been made to pass the Wilmot Proviso, but without success, but it called into existence the Free Soil party, formed by the union of anti-slavery Democrats and Whigs with the Abolitionists. As a compromise between the advocates and opponents of the extension of slavery, a bill had been passed by the senate establishing territorial governments in Oregon, New Mexico and California, with a provision that all questions concerning slavery in those territories should be referred to the United States supreme court for decision. It was voted for by members from the slave states, but lost in the house. A bill was then passed in the house, by a sectional vote, to organize the territory of Oregon, without slavery. This was passed by the senate with an amendment declaring that the Missouri Compromise Line extended to the Pacific ocean. The amendment was rejected by the house, again by a sectional vote, and, the senate withdrawing, the bill passed.

The Free Soil party.

216. The Whig National Convention met at Philadelphia, June 7, 1848, and nominated Zachary Taylor, of Louisiana, and Millard Fillmore, of New York. No platform was adopted, and resolutions affirming the Wilmot Proviso as a party principle were repeatedly voted down. The Democratic National Convention met at Baltimore, May 22. It revived the strict constructionist platform of 1840 and 1844, and nominated Lewis Cass, of Michigan, and William O. Butler, of Kentucky. The National Convention of Free Soilers met at Buffalo, August 9. It adopted a platform declaring that Congress had no more power to make a slave than to make a king, and that there should be no more slave states and no more slave territories. It nominated Martin Van Buren, of New York, and Charles Francis Adams, of Massachusetts. The Free Soilers decided the election by drawing the Democratic vote from New York, and so Taylor became president. He was brave, honest and shrewd, and by far the ablest president between Jackson and Lincoln. Though a Louisiana slaveholder, he was unflinching in his devotion to the union.

Conventions.

217. The leading political struggle during Taylor's administration related chiefly to the admission of California as a state in the union. Texas was the last slave state. The tide of emigration was moving steadily westward and northwestward. In 1846 Iowa was admitted into the union, and in 1848 Wisconsin. While the representatives of the people in Congress were struggling with the question of free or slave territory, the people themselves were rapidly increasing the influence of the free states. In the year that California became the property of the United States (1848) gold was discovered in the valley of the Sacramento, and a very hasty exploration showed that there was an immense deposit of the precious metal in the newly acquired territory. The news spread all over the world and immediately there followed a great rush to the gold region. In a little over a year the population had become large enough to entitle it to admission to the union, and there was need of a strong government to keep in check the numerous hordes of ruffians who had flocked in along with honest people. President Taylor was eager to bring California into the union before the question of slavery in that territory should be discussed in Congress. He urged the people to call a convention and organize a state. They did this (1849), and since they were almost wholly from the north, they framed a constitution prohibiting slavery, and applied for admission. The south earnestly opposed the admission of California as a free state, and the extreme southern party even took some steps toward secession. The debates were conducted on both sides with great bitterness.

California.

218. The controversy went on for a year, until it was settled by a group of compromise measures devised by Clay, who thirty years before had succeeded so well with his Missouri Compromise. He proposed that California should be admitted as a free state; that any new states properly formed from Texas should also be admitted; that the territories of New Mexico and Utah should be organized without the Wilmot Proviso (*i. e.*, with squatter sovereignty, by which the people of each territory were left free to settle the question of the existence of slavery for themselves); that the slave trade should be abolished in the District of Columbia, and especially that a more rigid fugitive slave law should be enacted. The constitution expressly gave to slave-holders the right to recover their slaves if they escaped into another state, but the increasing hostility of the people in the free states to the slavery system made it extremely difficult for slave-holders to find and recover runaway slaves when they had escaped into the northern states. This matter was one of great irritation to the southerners. They complained that they were deprived of their rights in direct opposition to the constitution. The new fugitive slave law was therefore so drawn as to require the arrest, by United States officers, of fugitive slaves in the northern states, and it also gave the officers the right to call upon any citizen to help them in their search and capture. The law also imposed penalties on all rescuers and denied them a jury trial.

Clay's compromises.

The fugitive slave law.

219. Webster gave his support to the Compromise of 1850. Like many others, he viewed with alarm the growing dissensions between the two sections of the country. He worked with all his might to preserve the Union against the attacks of the extreme pro-

Effects of the compromise.

slavery men on the one hand and of the Abolitionists on the other. California was admitted to the union, and the fugitive slave law was passed. Instead of bringing quiet, as the Missouri Compromise had done, the Compromise of 1850 was the beginning of a more bitter and deadly strife. Perhaps the most important feature of the Compromise, in its bearing upon future events, was the fugitive slave law. The cruelties attending its execution aroused the fierce indignation of the north. The disgust and horror felt toward it caused the passage, by some northern legislatures, of "personal liberty laws," intended to protect free negroes falsely alleged to be fugitive slaves. During the discussion of Clay's Compromise Bill of 1850, President Taylor died after a very short illness (July 9, 1850), and Vice-President Fillmore succeeded to the vacant office. He enforced the Compromise Act impartially, but the fugitive slave law was often evaded and sometimes forcibly resisted. It strengthened the anti-slavery party in the free states, while the agitation of the question of the morality and wisdom of slavery was hotly resented at the south.

Personal liberty laws.

Fillmore president.

220. It was now the middle of the century, and the union seemed full of prosperity. So various had the interests of the people become that a new department in the administration had been created (1849) called the department of the interior, and comprised a number of offices like the census office, patent office, land office, and bureau of Indian affairs, all of which had formerly been scattered among the other departments. The secretary of this department was made a member of the cabinet. During Mr. Fillmore's administration postage was reduced, so that an ordinary letter could be sent to any place in the country for three cents. Before that it had cost ten cents to send a letter from Philadelphia to Boston. At once the number of letters transmitted through the mails was wonderfully increased. The extinction of Indian titles in northern Michigan brought about the discovery of the great copper mines of that region, whose existence had long been suspected before it could be proved. Railroads in the east were beginning to show something of a connected system, and the increase of railways in the west made it possible for the great farms to send grain and other provisions to the city very cheaply. Railroads in the south had hardly changed since 1840. In 1840 Samuel F. B. Morse, an American artist, had received a patent for an electric telegraph apparatus, and four years later he sent his first dispatch over the wires from Baltimore to Washington. This practical proof of the power of the telegraph was followed by a rapid extension of lines in every direction.

Development of the country.

The telegraph.

221. Several expeditions were ordered by government to gain a better knowledge of the national domain. In 1848, and again in 1852 and 1853, Captain John C. Fremont was sent out with exploring parties to the Rocky Mountains. The discoveries which he made, and the new importance of California since the discovery of gold there, induced the government to make more careful surveys. The war department undertook one to determine the most practicable and economical route for a railroad from the Mississippi river to the Pacific ocean. Captain Wilkes was sent to the Pacific Ocean, where he explored the Antarctic continent; an expedition under Lieutenant Lynch explored the valley of the Jordan and the Dead Sea; and Commodore Perry was sent with a fleet to Japan, a country which had heretofore been almost unknown to Europe and to America.

Government expeditions.

222. Between the east and the west railroads were growing busier. Towns and cities sprang up along their routes, and where a new and fertile district was found the settlers did not rest until they had a railway for the transportation of their produce; and very often the railroad itself was the pioneer of a new territory, being followed by the people who made claims along its route. Ships and steamers were constantly crossing the Atlantic. Improvements were made by American shipbuilders in the construction of sailing vessels and the clippers, as they were called, were built, which were able to sail with a good wind almost as swiftly as steamers. The increased development of wealth in the country gave a fresh impetus to the spirit of invention. McCormick invented his reaping machine, and obtained a patent for it in 1834. Its results have been hardly less in importance to the United States than the invention of the locomotive. Since then agricultural machines and implements have rapidly increased. It was agricultural machines that made the western farms profitable, and enabled the railroads to fill the west so rapidly with population. Friction matches had come into use, and anthracite coal was now extensively used both in manufactures and locomotion. In 1839 Goodyear had devised his method of vulcanizing india-rubber. In 1846 came the sewing machine, the power-loom, and the use of anæsthetics in surgical practice. The rotary printing press was invented in 1847.

Inventions.

223. During this rapid change in all the conditions of life, it was not strange that there should be a corresponding change in the minds of men, and that their ideas should become somewhat unsettled. Hence transcendentalism in religion, literature and politics began to flourish; visionary proposals of every kind were made; new communities were established, and new sects sprang up. In 1830 Joseph Smith had declared that he had received a revelation from God which was contained in a book called The Book of Mormon. He formed a society of men and women who were his disciples, and called themselves Mormons, and they made a settlement in Missouri. In 1838, Smith, with his followers, was driven away to Nauvoo, in Illinois. Ten years later, Smith was killed, and the Mormons, under Brigham Young, removed beyond the western frontier, and settled on the broad plain about Great Salt Lake, in the new Territory of Utah. Their missionaries traveled in the older states and in Europe, making converts, and bringing them to the new Mormon home. They offered to people who were discontented, and to the hard-worked poor, a land of promise and plenty. They appealed to religious people, and declared that God was with them, as He had been with the Jews of old. Salt Lake City was founded, and became their capital. Since then, having rapidly increased in wealth and population, they have now become a dangerous factor in the American system. Their peculiar tenets, which consist mainly in their polygamy and submission to their sacred hierarchy, have rendered it impossible to admit them as a State into the Union, while their numbers are so great that it is contrary to American instincts to deprive them of the right of self-government, and keep them under the power of Congress. A solution of the vexing question may soon be reached by the increasing enforcement of the United States laws against polygamy.

The Mormons.

224. About the middle of the century, the American methods of education were greatly improved, and American literature began to attract the world's attention. There were publication societies formed by the churches, which multiplied books, papers and tracts without number, and these found their way to remote villages and homes. Educational societies helped establish schools and colleges in the thinly settled parts of the country. There was a Colonization Society, which tried to answer some of the difficult questions of slavery by sending free blacks to Liberia, in Africa. This was the time when the lyceum system became popular. In the cities and towns courses of lectures were instituted, and the latest thoughts in science, art, literature, politics and philosophy, were given to the people. The newspaper had become a national institution, and was a familiar visitor to the great majority of families of the republic. There were daily papers

Education and literature.

Newspapers.

in all the cities and towns, and in many papers the contents of books were published, aside from the general news and topics which interested the country. American authors were taking their place among the great men of the ages in the realm of letters. Before 1830, Bryant, Irving and Cooper, had become distinguished. In 1847, Edgar Allan Poe, the most imaginative of American poets, had died. In 1850, Washington Irving had written all his works except his Life of Washington. The poems by which William Cullen Bryant is best known had been written and given to the world. James Fenimore Cooper died the next year, leaving behind him a long list of novels, the best of which were descriptive of American life. Then came Longfellow, Whittier, Hawthorne, Holmes, Bancroft, Prescott and Emerson. The Scarlet Letter had been given to the public, which made Hawthorne famous. Longfellow had published Evangeline, and many of his most popular poems. Whittier had become celebrated as a poet; Oliver Wendell Holmes, as a poet and wit, William Gilmore Simms, as a novelist; Ralph Waldo Emerson had become known by his essays as one of the great masters of English prose; James Russell Lowell, poet and satirist, had issued his Biglow Papers, which helped people to understand the meaning of the Mexican war, while they laughed over the verses. And besides these, there were many others who assisted in raising the standard of American literature, and making it a distinct voice of the nation.

American authors.

225. All these things—churches, lyceums, public meetings, societies, newspapers and books, had their influence in shaping public opinion; and as they increased, more earnest grew the discussion of the slavery question. About this time, when the administration of Fillmore was coming to an end, a book was brought out which had an enormous sale, and was translated into all the literary languages of the world. This book was "Uncle Tom's Cabin," written by Mrs. Harriet Beecher Stowe, and it was for the time more widely read throughout the world than any other book. It was a story claiming to show what negro slavery really was, and what it meant in the lives of men and women, white and black, in the Southern States of the Union. The book was candidly written, and in a wonderful spirit of fairness, rather understating than exaggerating the evils of slavery, and its truths were all the more convincing for that reason. Its influence was doubtless very great in strengthening the anti-slavery feeling at the north, and in finally extinguishing the disturbing evil of the country.

Uncle Tom's Cabin.

VII.—THE APPROACHING CONFLICT.

Conventions of 1852.

226. June 1, 1852, the Democratic National Conventional met at Baltimore. Its platform included the strict constructionist platforms of former conventions, endorsed the Virginia and Kentucky resolutions of 1798, and pledged the Democratic party to a faithful observance of the compromise of 1850, including the Fugitive Slave Law, and denounced all agitatation of the slavery question. It nominated Franklin Pierce, of New Hampshire, and William R. King, of Alabama. The Whig National Convention met June 16 at Baltimore. In its platform it adopted its usual loose constructionist principles, though somewhat more cautiously worded than formerly, and endorsed the compromise of 1850 and the Fugitive Slave Law. It nominated Winfield Scott, of Virginia, and William A. Graham, of North Carolina. The Free Soil Democratic Convention convened at Pittsburgh August 11. In its platform it declared slavery to be a sin against God and a crime against man, and denounced the compromise of 1850, and the two parties who supported it. It nominated John P. Hale, of New Hampshire, and George W. Julian, of Indiana. Some of the Whigs, dissatisfied with General Scott, wished to bring forward Daniel Webster as an independent candidate, but Mr. Webster died in October of that year. Henry Clay had also died in June of the same year. These two great leaders of the Whig party were succeeded by such men as Sumner, Seward and Chase, avowed enemies of slavery. John C. Calhoun was also dead, and Jefferson Davis, afterwards to play such an important part in the nation's history, acquired the leadership of the slave-holders of the south.

227. The slavery question was the principal issue in the presidential election in November, 1852, and in the contest the Whigs met with a crushing defeat, which put an end to their party. When the electoral votes were counted in February, 1853, it was found that Pierce and King had received 254, and Scott and Graham only 42. Mr. Pierce's administration (1853-57) was chiefly occupied with the slavery dispute, in which he represented the policy of the southern party. He chose William L. Marcy for secretary of state, James Guthrie for secretary of the treasury, Jefferson Davis for secretary of war, and Caleb Cushing for attorney-general.

Pierce's administration.

228. The slave power was now at a loss what to do for new territory in which to extend itself. The north had already a preponderance in the senate, consequent upon the admission of California, and, from the rapid growth of the northwestern states, in which New England ideas and sentiments were becoming predominant, the southern leaders recognized the fact that ere long the north would hold the power in the house. Webster had shown, in his memorable speech of March 7, 1850, that there was no more territory for slavery within the limits of the union. What, then, were the southern states to do? It seemed absolutely necessary at once to get a new slave state to balance California, but the available land south of 36° 30′ was already occupied. New Mexico and the Indian Territory south of Arkansas presented themselves, but the westward movement of population along these lines would be far too slow for their purpose.

The slave power.

229. Seeing no legitimate method to acquire territory, their former plan was repeated, if not by the southern states themselves, certainly under the instigation of many of their citizens, and by members of the state rights party of the south, and for their advantage; for it was precisely at this period that William Walker, of Tennessee, the notorious filibuster, undertook to snatch Sonora for the south from Mexico, exactly as his predecessors had done with Texas. But he failed. In 1855, he and his band made the same experiment in Nicaragua. Here, for a time, he was successful. He overturned the lawful government, made himself president, and almost made the state in readiness for slavery and annexation to the federal government. But he was subsequently driven out, after which he returned home greatly disappointed and mortified. After two more unsuccessful attempts on Nicaragua, he planned his fifth and last expedition against Honduras. He was encouraged and assisted by his southern friends; mass meetings of his supporters were held even in New York, and in many other northern cities; and the state sovereignty party everywhere applauded his efforts to revolutionize and wrong a state. But Walker failed more fatally this time. He was defeated, captured and shot.

Filibustering.

230. Having been foiled in the attempt to gain a foothold in Central America, the slave power now turned to another state as offering a solution of their difficulties. The southern states wished to annex Cuba. Mr. Pierce proposed to buy it, and at his suggestion a conference was held at Ostend, in Belgium (1854) between the American ministers to Spain, England and France, Messrs. Pierre Soulé, James Buchanan and John Y. Mason to consider the question. A memorandum drawn up by these gentlemen and submitted to the president, is known as the Ostend Manifesto. It declared that Cuba was necessary to the United States; that it was the duty of this country to prevent the

Cuba.

Ostend manifesto.

emancipation of slaves in the island; and that if Spain refused to sell Cuba, the United States would be justified in taking it from her by force. This declaration caused great indignation in the north. Nothing, however, came of it.

Tendencies to disunion

231. Meanwhile, the tendencies to disunion were becoming stronger. Texas, the last slave State ever admitted, had refused to be divided, hence the South could hope for no further increase of numbers. After 1850, the political power had passed out of the hands of the south. The free states now, by uniting, could control both houses of Congress, elect the president and vice president, dictate the appointment of judges and other federal officers, and make what laws they pleased. Thus the interests of the south depended upon the one question whether the free states would thus unite or not. Under circumstances so critical it were better for the slave power that all questions calling public attention to the question of slavery should be avoided; this, however, was simply impossible. The numbers interested in its solution had become too great to be silenced. It was the question of the hour, discussed in all ranks of society, breaking up party lines, and even disorganizing ecclesiastical institutions. The Protestant church organizations of the United States had been greatly agitated by the irrepressible question, and some of them became divided. In 1845, the Baptist church separated into a northern and southern branch, and the Methodist church shared the same fate the following year. The Presbyterian church managed to maintain its integrity until 1861, when it also yielded to the pressure; and the only churches retaining their national character were the Episcopal and Roman Catholic.

Kansas-Nebraska bill.

232. The southern leaders, strongly desirous of acquiring more territory in which to extend slavery, now concocted a seemingly practicable scheme to get control of that part of the country lying west of Missouri and Iowa. This land lay to the north of 36° 30', and according to the terms of the Missouri compromise, was forever to be free soil. A plan was devised to obtain if possible, the repeal of that celebrated compact. With the aid of some of the northern members of Congress this might be done. The scheme proved successful so far as legislation could go. In December, 1853, a bill was introduced in the senate to organize the territory of Nebraska. A southern senator at once arose and demanded that the Missouri compromise should not be so construed as to prohibit slavery within the new territory. The bill was at once dropped. But a sufficient number of free state Democrats soon acquiesced in the southern demand to make it a success. One week later a new bill was brought in, known as the Kansas-Nebraska bill. It divided the region covered by the previous Nebraska bill into two territories, one directly west of Missouri, and between the parallels of 37° and 40°, to be called Kansas, and the other north of this and between the parallels 40° and 43°, to be called Nebraska. Thus two states were opened to the southern institution, instead of one, for this new bill distinctly declared that the Missouri Compromise had been swept away by the later compromise of 1850. President Pierce had pledged himself to the south, in his letter accepting his nomination, to acknowledge and execute this latest bargain with slavery, in case he should be elected.

Squatter sovereignty.

233. The bill was enacted, but the position was now assumed, that Congress had no authority to vote slavery *in*, or to vote it *out* of either of these territories, since it belonged of natural right to their respective populations to decide for themselves the character of their own institutions. This idea was known as that of squatter sovereignty, and it was proclaimed in order to open Kansas to an immediate slave immigration from Missouri, while Nebraska might afterward be captured in the same way from slaveholding Kansas. It was a plausible doctrine, because it appealed to that strong love of local self-government which has always been one of the soundest political instincts of the American people. The plan was an astute one. It originated with Stephen A. Douglass, a northern Democrat, and laid bare the finest region of country which opened up for settlement, as a battle-ground between the slave-labor and the free-labor systems.

234. This act was the most palpable blunder ever known in the history of American politics. Its practical result was to create a furious rivalry between north and south, as to which should first get settlers enough in Kansas to secure a majority of the popular vote. The issue, thus clearly defined, wrought a new division between political parties. The southern Democrats and southern Whigs united in favor of the Kansas-Nebraska bill, while the northern Whigs and Free-Soilers united against it. The division between the northern and southern Whigs was final. The northern section at once repudiated their old party name, and combining with all the northern men who were opposed to the extension of slavery took the name of anti-Nebraska men, and succeeded in electing a majority of the house of representatives. A new party had arisen in 1852, which was now an important factor in American politics. It assumed the form of a secret oath-bound organization, of whose name, nature and objects, nothing was told, even to its members until they had reached its higher degrees. Their consequent declaration that they knew nothing about it gave the society its popular name of "Know-Nothings," but it assumed the name of the "American party." Its design was to oppose the influence of the Roman Catholic church, the easy naturalization of foreigners, and to aid the election of native-born citizens to office. Its nominations were made by secret conventions of delegates from the various lodges, and its nominees were to be voted for by all its members under penalty of expulsion in case of refusal. For a time it was quite successful in state elections, and was now aiming at a greater extension of its influence. At first it had intended to ignore the slavery question, but after a few years of existence the complications arising from the discussion of this subject affected its organization and resulted in its division.

Anti-Nebraska men

The American party.

235. The old Whig party disappeared about this time. Some of its members joined the American party, and the majority, including the old anti-slavery men and Free Soilers, with many others, united under the name of the Republican party. The name was at once recognized by the Democrats, who, in contempt, called them "Black Republicans," because of their alleged fondness for negroes. The Democratic party, which had been practically the only party since 1852, had now to contend with a political organization which adopted broad constructionist principles, declared itself in favor of protective tariff, internal improvements and a national system of bank currency, and added to them the further principle that the Federal government has the power to control slavery in the territories. It affirmed, at first, that it had no design to interfere with the institution of slavery in the states where it belonged, but simply intended to exclude it from the territories. But with the enunciation of its fundamental principles it was at once recognized as an anti-slavery party, and the only one to which the southern slave could look with the faintest hope of aid in throwing off the chains of bondage. The Democratic party had quite thrown aside its original title—that of Republican—but the name was still popular, and the new party, by a skillful stroke of policy, took advantage of this feeling and assumed the old name. Thus, in 1856, the two great parties, which were to figure so largely for the next thirty years in the history of the country, were arrayed against each other.

The Republican party.

The struggle for Kansas.

236. The attention of the whole country had now been turned to the struggle provoked by the Kansas-

Nebraska bill, and the repeal of the Missouri Compromise. Kansas had been offered as a prize to be contended for by free and slave states, and both had accepted the contest. As in the case of California, it was found a slow work to colonize the new territory, even from Missouri, by permanent settlers, for the people of that state had land enough of their own, still unoccupied, to absorb for years their surplus population. The only recourse, therefore, was to send their worst inhabitants across the border, not to settle, but to vote and fight for slavery. Consequently gangs of "border ruffians" poured into Kansas from Missouri and Arkansas. But the free states were not behind in a struggle. Anti-slavery societies subscribed money to hasten immigration into the contested territory, and people from the free states migrated thither in such numbers that in a few months they constituted a decided and lawful majority of the actual settlers. The administration took alarm at the ill success of its own plans. Many of the inhabitants of Missouri undertook to impede the passage of northern emigrants through their state, but the immigrants circumvented them by winding their way around through the free state of Iowa. In the meantime the government sent an army to Kansas, professedly to keep the peace, but it would seem in reality to compel the acceptance and establishment of slavery. The first election of a delegate to Congress took place November 29, 1854, and was carried by organized bands from Missouri, who crossed the border on election day, voted, and returned at once. In the spring of 1855, the ruffians in this way voted to organize a territorial legislature, and this measure was carried in the same lawless manner. In July, 1855, this legislature, all pro-slavery, met at Pawnee, and adopted a state constitution. To save trouble, as well as to secure at once the establishment of slavery, they took a summary vote, adopting in their entirety the laws of slaveholding Missouri. At the same time they enacted a set of original statutes, which denounced the penalty of death for nearly 50 different offences against the institution of human bondage.

Free-state government.

237. To defend themselves against these illegal proceedings, the actual settlers held a free-state convention at Topeka, September 5, 1855, repudiating the work of the pro-slavery party; and on January 15, 1856, they elected state officers under the lawful constitution. Nine days afterwards, the state-rights president, in a special message to Congress, endorsed the pro-slavery legislature, and pronounced the attempt to form a free-state government, without the approval of the Federal authorities in the territory, to be an act of rebellion. He then issued a proclamation warning all persons against such acts of resistance to the lawful government, and despatched another body of troops to enforce the constitution of the border ruffians. The struggle continued unabated. In the senate-chamber Charles Sumner had been stricken to the floor with a bludgeon and nearly murdered by Brooks, in the presence of several southern and unresisting senators, for daring to criticise these unjust and one-sided proceedings. Brooks was expelled by northern votes, but was immediately returned by his southern constituents. In Kansas, the free-state settlers refuse to recognize the territorial government of the slave party, and as the pro-slavery settlers and their allies would not render obedience to the other government, the contest passed into a real civil war, the two sides mustering considerable armies, fighting battles, capturing towns, and paroling prisoners. Two free-state towns, Lawrence and Ossawattomie, were sacked. The free-state legislature peaceably assembled at Topeka, and was dispersed by order of the president. Many of its members were arrested and imprisoned. Every free-state citizen's dwelling had to be guarded and defended by armed force, and no free-state man could plow or plant or gather in his crops without fighting for his life.

Sumner and Brooks

238. The free settlers still continued to maintain their position, in spite of the persistence of slave party, with the whole force of the administration at its back. Several pro-slavery governors — Shannon, Geary and Walker — were sent to represent the southern party, and subdue the citizens to its purpose and control. A second slave constitution, made at Lecompton, was offered to the people in a tricky and nefarious manner. It was to be voted for "with" or "without" slavery, but in either case there would be an affirmation of the doctrine of states-rights. The free settlers accordingly refused to vote. The constitution of necessity was adopted and the new document sent to Washington, was accepted by the president and State-rights party. But the measure failed to carry through the house. Another territorial legislature was elected, and this body sent the Lecompton constitution to the polls to be voted for, or against, as a whole. It was defeated by a majority of six thousand. In spite of this, however, the president, in a special message, urged upon Congress the Lecompton constitution *with* its slavery features, declaring that the new legislature had no right to submit it to a second vote. But he was not sustained. In July, 1859, the citizens of Kansas met again in convention at Wyandotte, and adopted a resolution forever excluding slavery. It received a majority of four thousand at the polls.

Lecompton constitution.

239. In the heat of the Kansas struggle came the presidential election of 1856. The Democrats nominated James Buchanan and John C. Breckenridge, adopted the strict constructionist platform of former conventions, and added to it an endorsement of the Kansas-Nebraska bill and the principle of squatter sovereignty. The Republicans nominated the western explorer, John C. Fremont, and declared the right and duty of Congress to prohibit slavery in the territories, thus planting themselves upon the ground of the Wilmot Proviso. The small remnant of Whigs, including the Know-Nothings of the north and those southern men who wished no further discussion of slavery, nominated Fillmore, and tried to turn attention away from the great question at issue by protesting against the too hasty naturalization of foreign-born citizens. Buchanan received 174 electoral votes, Fremont 114 and Fillmore 8. The large Republican vote showed that the northern people were at length awakened to the situation, and the south in consequence was both astonished and alarmed. For the first time in the history of the country a distinctively anti-slavery candidate had obtained an electoral vote, and had nearly gained the presidency. Though the Democratic party had been successful in this election, its triumph was seen to be far less complete than when it come out of the election of 1852. It no longer controlled twenty-seven of the thirty-one states; all the free states but five had cast their votes against it, and its candidate no longer had a majority of the popular vote, but was simply chosen by a majority of the electoral vote.

Presidential campaign of 1856.

The strongest section of the Union was in the hands of its political opponent, through whose ranks a spirit of earnest enthusiasm was being increasingly diffused.

240. The strength of the opposition manifested against the Democratic party in this election, more than ever convinced the south that the time was fast approaching when political power would pass from those who defended slavery to those who opposed it. Hence the slave power gathered up its forces for the great struggle which must inevitably ensue. It became more aggressive than ever. It demanded a renewal of the African slave trade, which had been forbidden since 1808, and without waiting for the question to be settled, the nefarious traffic was opened on an extensive scale, with but little attempt at concealment. During the year 1857, twenty-two vessels engaged in this business were captured by the British fleet watching the African coast and every vessel but one of these was American. By 1860 the trade had assumed large proportions, and was

African slave-trade.

openly advertised in the southern newspapers. But this was not deemed sufficient. To insure the perpetuation of the "peculiar institution," it was necessary to enlist the active protection of the Federal government in its favor. Squatter sovereignty had not served the purpose, for in the Kansas struggle, despite all the efforts made, slavery had been worsted. Squatter sovereignty was accordingly thrown aside, and a demand made that the Federal government should protect slavery in all the territories.

The Dred Scott decision.

241. Up to this time the constitutionality of the Missouri Compromise had never been considered in the supreme court. The question was brought to test in a case which was decided in 1857, two days after Buchanan's inauguration. One Dred Scott, a slave who had been taken by his owner from Missouri into free territory, and had therefore sued for his freedom, was sold to a citizen of another state. Scott then transferred his suit to the Federal courts, under the power given them to try suits between citizens of different states, and the case came by appeal to the supreme court. The decision was startling to the north. It declared, in substance, that according to the constitution, no slave, or the descendant of slaves, could be a citizen of the United States; that slaves were not persons, but property, and that slave-owners could migrate from one part of the union to another and take their negroes with them, just as they could take their horses or any other property. It, moreover, pronounced the Missouri Compromise Act unconstitutional and void, slaves being private property, with which Congress had no right to interfere. And it further declared that it was the duty of Congress, not to prohibit, but to protect, slavery in the territories. The mass of the northern people held the opposite of Chief Justice Taney's decision. They claimed that slaves were regarded by the constitution, not as property, but as "persons held to service or labor" by State laws; that Congress was constitutionally bound to protect liberty as well as property; and that its duty was to prohibit, not to protect, slavery in the territories. It was plain that the decision of the supreme court would never be received as the law by the free states. A storm of angry dissent arose, of which the slave-holders hastened to take advantage. They maintained that the duty of Congress to protect slavery in the territories had been confirmed by the highest judicial authority in the land, and that the Republicans had refused to accept its rulings; therefore, whatever the result might be, the Republican party must accept the responsibility. At this time, as will be seen, the northern, or Douglass Democrats as they were called, who had heretofore supported the south, now refused to follow the southern lead any further, but chose rather to divide the party.

Slave states and free states.

242. In 1860 the slave states were fifteen in number, namely, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Alabama, Kentucky, Tennessee, Louisiana, Mississippi, Arkansas (admitted 1836), Florida (1845), and Texas (1845). The free states were eighteen, namely, Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Michigan (admitted 1837), Iowa (1846), Wisconsin (1848), California, Minnesota (1858), and Oregon (1859). Kansas had adopted a free state constitution, but was not admitted until 1861. At this period the population of the United States was more than 31,000,000, an increase of over 8,000,000 in ten years. The population of the slave states was 12,000,000, including 4,000,000 slaves and 250,000 free blacks; but the colored element in the southern population could hardly be regarded as a factor of strength, but rather as a possible source of danger. No serious slave uprising had ever threatened the south, but John Brown's raid and the alarm which it produced in the southern states betokened a danger which added a new terror to the chances of a civil war.

John Brown's raid.

Brown, a Connecticut man of the old Puritan type, had been an anti-slavery leader in the Kansas fights. His plan was to raise an insurrection among the slaves of Virginia, and arm them to liberate their people by force. In October, 1859, he and his men surprised and seized Harper's Ferry, where there was a large store of muskets and ammunition; but the negroes did not rise, and Brown was overpowered by national and state troops, and hanged (December 2) by the authorities of Virginia.

243. The next election for the presidency was looked forward to as a critical time. Many persons of influence in the south declared that if the election should strengthen the preponderance of the north, the slave states would break up the union and form a confederacy of their own. The Democratic national convention, which met at Charleston, S. C., April 23, 1860, was characterized by its stormy session. The demands of the southern extremists produced a political schism, and the convention with the party was split into two distinct portions. The Douglas Democrats refused to yield to the wishes of the slave power, and still maintained the principle that the question of slavery in each territory should be decided by its settlers; but they made a concession by offering a resolution that the party would abide by the decisions of the supreme court. The southern delegates offered resolutions affirming the doctrine of the Dred Scott decision, that neither congress nor the territorial legislatures had a right to prohibit slavery in the territories. The convention adopted the Douglas platform, whereupon the delegates from many southern states, successively protested and withdrew, and at once organized a new convention in Charleston, adopted their platform, and adjourned to meet again in Richmond, June 11. The original convention, after balloting fifty-seven times for candidates without a choice, adjourned to meet again at Baltimore, June 18. Upon reassembling at the appointed time, it seated some new delegates friendly to Douglas, whereupon the remaining southern delegates, who chiefly belonged to the border states, also withdrew, and joined their brethren at Richmond. Here they nominated John C. Breckenridge and Joseph Lane for president and vice-president. The remainder of the Baltimore convention nominated Stephen A. Douglas and Herschel V. Johnson. The Republican convention assembled at Chicago, May 16. It adopted a somewhat broad constructionist platform; advocated the exclusion of slavery from the territories by congressional measure; declared in favor of a protective tariff, the homestead bill, internal improvements, and a Pacific railway. It nominated Abraham Lincoln and Hannibal Hamlin. There was a fourth organization called "The Constitutional Union Party," composed of the fragments of the old Whig and Know-Nothing parties. It declared as its political principles, "The constitution of the country, the union of the states, and the enforcement of the laws." Its candidates were John Bell and Edward Everett. Four parties were now in the field, and only two had the courage of their convictions, the southern Democrats and Republicans. The Bell party had adopted a "take it as you please" platform; it simply evaded the slavery question altogether; while the Douglas platform sought to throw the responsibility of a decision concerning the question upon any shoulders except those of the Douglas Democrats.

The split in the Democratic party

The Republican convention.

Constitutional Union party

Election of 1860.

244. An exciting canvass now followed. The Republican party had been gaining confidence and enthusiasm, and the discordant efforts of the three parties opposed to it, only made Lincoln's election more certain. In the electoral college Lincoln obtained 180 votes, Breckinridge 72, Bell 39, and Douglas 12. No candidate received a majority of the popular vote, Lincoln standing first and Douglas second. The popular vote for Douglas, though large, was not so distributed

as to gain a majority in any state except Missouri; beside the nine electoral votes in that state, he obtained three in New Jersey. Thus the election resulted in a decisive victory for the Republicans. Its significance was far reaching. The interests of the south and even of slavery there would be safe enough under Lincoln, but the overthrow of the Dred Scott and squatter sovereignty doctrines was certain, and an immediate stop would be put to the extension of slavery in the territories. In such circumstances the course of events was evident. Nullification was no longer feared by the nation. Secession on the part of a single state even, was now almost out of the question. No one of the southern states would agree to secede unless assured of support by the others; a combined action was necessary to assure the success of any secession plans.

Secession.

245. During the discussion which preceded the election, the north heard repeated threats from the south, that if the Republican party were successful, the slave holding states would leave the union; but these threats were looked upon as merely the angry declarations of a few heated politicians. Yet these disunion expressions were sincere. The southern people had learned to look upon the north as thoroughly hostile to the south. They made little distinction between the Republican party and the Abolitionists, and they felt instinctively that a government elected in a spirit of opposition to slavery would find many ways to injure it. The political habits, and the way of life at the south, made it easy for southern voters to believe in disunion as a cure for the evils with which they felt they were threatened. The doctrine of state independence had become familiar to them; it had been laid down in the Kentucky and Virginia resolutions of 1798, and had been maintained by Georgia in the difficulty with the Indians, and by South Carolina in her Nullification Act. They had remained "Planting States;" they still had their own social life; the same families lived upon the same estates. There was no such constant movement from one state to another as at the north, nor any such introduction of immigrants from Europe. They were, as they have always had been, Carolinians or Virginians, rather than Americans. South Carolina took the lead in fulfilling the promise of secession. As soon as it was announced that Mr. Lincoln was elected, her legislature ordered (November 10, 1860,) the assembling of a convention in December following. The senators from the state, and all office holders in South Carolina under the Federal government at once resigned. The convention met at the appointed time, and on December 20, unanimously passed an ordinance of secession declaring "that the union now subsisting between South Carolina and the other states under the name of the United States of America is hereby dissolved." As reasons for this course, the convention referred to the nullification of the Fugitive Slave Law by the personal-liberty bills, and the election of a president, "whose opinions and purposes were hostile to slavery." The convention then took all the necessary steps to put the state in readiness for war, and adjourned. A copy of the ordinance was sent to each of the slave states, and several of them now rapidly followed this bold lead. Similar ordinances were passed by Mississippi, January 9, 1861; Florida, January 10; Alabama, January 11; Georgia, January 19; Louisiana, January 26, and Texas, February 1. Tennessee, North Carolina, Arkansas and the border states still refused to join their more southern neighbors. One force, however, might be exerted which would compel them to a decision. Should the Federal government attempt to coerce the seceding states, a state which did not wish to secede, but maintained the doctrine of state sovereignty and the right of secession, would be inclined to take up arms in its defence. Thus, in the following spring, four more of the slave states reinforced the original seven seceding states, making their final number eleven.

246. The act of secession, at first, met with opposition in the south, not from any sentiment that the act was wrong, but from the expediency of its exercise. Delegates had been elected to the state conventions who were to vote against secession, but they were defeated through the idea which had obtained that the state "could make better terms out of the union than in it." It was held that it would be more advantageous to their rights and interests to withdraw temporarily from the Federal government until proper guaranties for the observance of these should be given; and if all conditions were satisfactory, then they might deem it best to return. In planning secession, the southern leaders recognized many things in favor of independence on which they supposed they might reasonably count.

Plans of the South.

To gain success, it was not necessary for them to conquer the north, or any part of it, but only to hold their own frontier; whereas, should the north attempt coercion, it would necessitate the military occupation, by its armies, of the whole vast area of the southern country, which would be a tremendous undertaking never attempted before on a corresponding scale by any civilized government. They did not believe the United States authorities would really attempt such a measure. In this they fatally erred. They believed that all the slave states would join in the secession movement. This, however, was not done. Then they hoped that the action of the Republican administration would be so paralyzed by Democratic opposition in the north, that its efforts at coercion would be rendered futile. In this they were doomed to disappointment; for when war came, the great majority of the northern Democrats loyally supported the government; while those, nicknamed "Copperheads," who endeavored to impede its efforts, were too small in number to do any serious harm. Finally, they thought they might look for aid from England and France. "Cotton is king," was the cry, and while the English manufacturers were dependent for their cotton from the south, it would scarcely be possible that the English government would allow the southern coasts to be blockaded. But the sentiment of the great majority of England's working people was found to be in favor of the north. The great mass of the English people, in spite of many aristocratic sympathizers with the south, felt that the action of Great Britain in the African slave trade question, would not permit her, without the most glaring inconsistency, to give support to the principal slave power in the world. With respect to France the case was just as hopeless. Napoleon III, it is true, was desirous of recognizing the independence of the south, for he had designs upon Mexico incompatible with the Monroe doctrine, but he was unwilling to make the move without the concurrence of England, and this he could not obtain. Thus the southern leaders failed in their expectations, and were thrown upon their own resources.

247. In February, 1861, a convention of delegates from the seceding states met at Montgomery, the capital of Alabama, and formed a government under the name of the Confederate States of America. The title thus declared that the states formed a confederacy and not a union. The government was a provisional one for a year, since only seven of the southern states were represented. Jefferson Davis, of Mississippi, was chosen president and Alexander H. Stevens, of Georgia, vice president. A provisional constitution was formed, and an army, treasury, and other executive departments established. The permanent constitution, adopted in March, was copied from that of the United States, except that it made careful provision for slavery, and forbade a protective tariff or the maintenance of internal improvements at general expense. The seceding states at once took measures to take possession of the arsenals, forts and other property of the United States within their borders. Mr. Buchanan's secretary of war was John B. Floyd, of Virginia, a zealous secessionist, and

Organization of the Confederacy.

by his orders an immense quantity of muskets, cannon, ammunition, and other warlike stores had been transferred from northern to southern arsenals. All this fell into the hands of the secession party. The army was scattered at remote posts where it could be of no use, and most of the navy was at foreign stations. General Scott urged President Buchanan to strengthen the garrisons of the southern forts, but Mr. Floyd protested, and nothing in that direction was done.

248. The forts throughout the south were mainly in the hands of southern men, who delivered them to the new authorities. The commanders of Fort Pickens, at Pensacola, and of the forts at Key West and Tortugas refused to give them up. The greatest interest, however, attached to the forts within the borders of South Carolina. The harbor of Charleston was commanded by Forts Sumter and Moultrie and Castle Pinckney. Fort Sumter was not yet finished, and the garrison, under Major Anderson, was occupying Fort Moultrie, a weaker work. This officer secretly transferred his men and supplies to Fort Sumter during the night of December 26, 1860. South Carolina demanded the evacuation of the fort. President Buchanan refused the demand, and sent the steamer *Star of the West* with supplies and reinforcements for the fort. He intended the expedition to be a secret one, but it was known at once in Charleston, and when the steamer appeared it was fired upon and driven back (January 9, 1861). The South Carolinians had taken possession of the other forts in Charleston harbor, and now erected additional works. General P. G. T. Beauregard was placed in command of the harbor defences. President Buchanan was filled with perplexity. In his message to Congress he stated his inability to execute the laws in the seceding states, but Congress gave him no help. He condemned the doctrine of secession, and denied the right of the states to secede; he also denied the right of the government to coerce them when they did secede. His cabinet was divided. The southern members dropped out as their states seceded, and General Cass, of Michigan, secretary of state, resigned in displeasure at Mr. Buchanan's inaction.

Star of the West.

249. The resignation of the southern senators and representatives gave the Republicans a majority in Congress. That body now proceeded to admit Kansas as a state, and passed a protective tariff designed to encourage manufactures. Otherwise Congress did nothing but pass resolutions intended to pacify the south. Time which should have been spent in concentrating the energies of the Federal government, and preparing it to assert its supremacy, was frittered away in vain discussions about measures proposed to avert the disaster. Mr. Seward, senator from New York, and one of the most conspicuous of the Republicans, was willing to give up congressional prohibition of slavery in the territories, to enforce the fugitive slave law, and to perpetuate slavery by a constitutional amendment. The people throughout the country were in a state of bewilderment. The government authorities seemed to have no power to direct affairs. Great meetings were held in the principal cities of the north denouncing abolitionism and urging extreme concessions. Prominent journals of both parties declared that armed coercion was madness and never would be permitted. At the suggestion of the Virginia legislature, a peace congress, composed of delegates from thirteen free states and seven border states, met at Washington (February 4, 1861), and tried to bring about harmony between the sections, by proposing a number of amendments to the constitution. Nothing came, however, of any of these schemes. Disunion was now an assured fact, and was soon to pass into open hostility. It was during this state of affairs that the new administration of Abraham Lincoln entered upon its perplexing duties.

Kansas admitted.

The popular feeling.

Peace Congress.

VIII.—THE CIVIL WAR.

250. Mr. Lincoln was inaugurated March 4, 1861. In his address he declared that he had neither the right nor the desire to interfere with slavery where it already existed; that no state could lawfully go out of the union; and that he should maintain the laws and constitution of the United States to the best of his ability. The new administration was beset with difficulties on every side, and the condition of affairs seemed almost desperate. Many of those who for years had guided the "ship of state," and who understood its workings, were now foremost in advocating secession. Mr. Lincoln's officers were new to the business of the Federal government. The treasury, by defalcation, was nearly bankrupt. Few troops were within call; and the army had been almost broken up by the surrender of detached forces in the Confederate states, and the capture of munitions of war. The vessels of the navy were sailing or at anchor in distant waters, and numerous officers of both the army and the navy were resigning their commissions on the ground that they owed allegiance first to the states from which they came. Seven states had already revolted, and others were ready to swell the number upon the first attempt to enforce the Federal authority. The public officers were largely occupied by persons in sympathy with the secession movement, and every step taken by the new government was known at once to the leaders of the Confederacy, and to crown all, Mr. Lincoln was beset by a vast horde of office-seekers eager to take advantage of the change of administration.

Lincoln's inauguration.

251. The president waited a month and then notified Governor Pickens, of South Carolina, that he should send supplies to Fort Sumter at all hazards. This announcement precipitated an attack upon the fort. Major Anderson was first summoned to surrender, but he refused. At daybreak on the morning of April 12, 1861, the Confederacy began its open conflict with the United States. All the batteries around the fort opened fire upon it; the fort replied, and the bombardment continued for thirty-six hours without loss of life on either side. The ammunition in the fort was then exhausted, and the works inside were on fire. Thereupon the United States flag, for the first time in its history, was lowered to insurgent citizens, and the garrison capitulated. This event aroused the north as if from a trance. Until now, the mass of the people had refused to believe in real danger; but the first shock of arms thoroughly convinced them that the south was ready to fight, and could not be curbed without war. It did more than this. In the northern states party distinctions were for a time swept aside; there was but one party worth the name—the party for the union. The southern states were no longer "erring sisters" to be coaxed by concessions. The whole north called loudly for the full exercise of the Federal power to compel the south to obedience at the point of the bayonet.

Fort Sumter.

Effect in the north.

252. The day after the evacuation of Fort Sumter President Lincoln called for 75,000 volunteers for three months (April 15). The response was so promptly made that the first Massachusetts troops began their march on the same day, and in a surprisingly short time the quota was full; nay, it could have been filled three or four times over, and the many who were refused felt a keen disappointment at not being allowed to bear arms in defense of the union. In the south, also, the effect of the first conflict was correspondingly great. To the ignorant masses it did not seem possible that any other power could be superior to that of their own state; while the more intelligent classes had, from their childhood, imbibed the doctrine that state sovereignty was the foundation of civil liberty. Hence all felt bound to follow the lead of their state; and when

First call for volunteers.

The feeling in the south.

the president of the new Confederacy issued his call for men, it was answered, as in the north, by overflowing numbers.

The border states.

253. Those southern states which had wavered were now compelled to make their choice. When Mr. Lincoln called for troops the Governors of Arkansas, Virginia, North Carolina and Tennessee refused to obey. North Carolina and Arkansas then seceded, and joined the Confederacy. In Tennessee and Virginia "military leagues" were formed with the Confederate states, by which Confederate troops were allowed to take possession of their territory, and by their aid the question of secession was submitted to popular vote. Thus the secession of these two states was accomplished in part, but not wholly. The people of the Alleghany mountains were loyal to the union; in eastern Tennessee they aided the Federals as much as possible; the opposition to secession was so strong in the western counties of Virginia that the inhabitants refused to obey the convention which passed the ordinance; they chose a legislature which claimed to be the true government, and at last formed a new state which was admitted into the union in 1863 under the name of West Virginia. Even thus curtailed, Virginia was a most important accession to the confederacy; it increased its military strength greatly, and at once became the chief battle-ground of the war. The confederate government was moved from Montgomery to Richmond; and since Washington was separated only by the Potomac from the confederacy, it was clear that the great contest would be fought in the country which lay between the two capitals. Moreover, Virginia was the richest and greatest of the slave states, and furnished the southern army with its ablest leaders, many of whom—such as Lee, Jackson, Johnston, and Ewell—were opposed to secession, but thought it right to shape their own course by that of their state.

254. There was a strong anti-union element in Missouri. Kentucky, Maryland, and Delaware, and the most momentous results—involving, doubtless, the success of the union cause—were involved in the action they would now take. Aside from Virginia, Missouri was the most powerful slave state, and her geographical position, with that of Kentucky and Maryland, was of incalculable military importance. Had these three states united with the confederacy it might have won the prize for which it was contending—independence. Missouri, however, did not break away, though the issue was for some time doubtful with her. Delaware cast her lot with the union. In Maryland and Kentucky efforts were made to maintain neutrality, but they were soon induced to declare in favor of the Federal government. Kentucky, however, had some of her sons in the southern ranks, among whom was John C. Breckinridge, a former vice-president of the United states, who became an officer in the confederate army.

Military condition of the north.

255. The Federal government was in no want of men, but the action of Secretary Floyd had almost stripped it of arms to equip them. Agents were sent abroad to purchase guns, private manufactories were worked day and night to produce them, and in a short time the administration was able to call more men into the field. The northern people were unmilitary in their habits and thoughts. They had a militia, but it was poorly organized. The Mexican war had drawn few volunteers from this section, and the United States army was very small and imperfectly equipped. The early action of the Confederates also had weakened it. There was, however, a greater population to draw from than at the south. There was also a wider range of industry to supply the necessary funds to carry on the war. The agricultural products of the United States far exceeded in volume those of any other country, and in merchant shipping it was only second to Great Britain. Between 1830 and 1860 American civilization had shown a wonderful growth in all directions—in facilities of travel and exchange, in home comforts, in manufactures, in literature and art, and especially in the development and building up of that moral sense which enabled the country to pass so successfully through the trying times of the next four years.

256. But this material and moral progress was mostly confined to the north. The south was far from possessing an equal share in it. Her case was one of arrested developement, not from any natural inferiority in the people, but simply because their moral sense and spirit of enterprise had been blighted by the curse of slavery. Labor was held to be degrading, and those who carried on the few branches of industry were considered an inferior caste; railroads, commerce and manufactures could not thrive, and hence there was but little immigration; the progressive ideas from the modern world outside were opposed from the fear that they might prove injurious to the pet institution of slavery. Thus the advance of civilization was checked, and whatever might have conduced to the material welfare of the south was kept away as far as possible. In the north the rising man was marked by the extent of his business relations; in the south by his ability to buy slaves, which assured him nearly always an entrance into the the ranks of the dominant class. This class furnished the representatives and senators in Congress, the governors, and all the officeholders over which the slave power had control. Thus its ablest and best men combined to defend certain tendencies which were foreign and hostile to those of the rest of the country, and of the world in general. With such odds against it, the struggle of the south during the four years of war showed of what heroic stuff its people were made. Of the south.

First blood of the war.

257. The first blood of the war was shed in the streets of Baltimore. Massachusetts and Pennsylvania troops on their way to Washington were attacked by a Baltimore mob (April 19, 1861,) and some of the soldiers killed. The populace, which sympathized with the south, declared that no northern troops should pass through the city. The railroad was blocked up, bridges were burned, telegraph wires were cut, and all direct communication with the north was stopped, until the president sent a military force from Annapolis to occupy Baltimore and keep the road open. In a short time the active hostility of the people was overcome, and the national capitol made secure. By July 4 the confederates had pushed their forces as far as Manassas Junction, about thirty miles from Washington. Their line of defence was already marked out, and its length has been estimated at eleven thousand miles, including the Atlantic and gulf coasts. It comprised the left bank of the Potomac from Fortress Monroe nearly to Washingington; from thence it extended to Harper's Ferry, on through the mountains of western Virginia and the southern part of Kentucky, crossing the Mississippi a short distance below Cairo. From this point its direction was through southern Missouri to the eastern bordor of Kansas; then southwest, through the Indian territory, and along the northern boundary of Texas to the Rio Grande. The area contained within this interior line and the sea-coast was about 800,000 square miles, with a population of over 9,000,000. It comprised, also, the territory devoted to the raising of cotton, an article necessary to the manufacturing interests of the world. It was upon this production that the south relied largely for aid; all the munitions of war could be procured in exchange for it; and she believed it would be a powerful factor in preventing the blockading of her ports.

The blockade.

258. In consideration of this fact, and also that the confederate line of sea-coast was over three thousand miles in length, with but one port of refuge for a blockading fleet about the middle of the line, it scarcely seemed possible that a blockade could be maintained with any marked degree of success. Nevertheless,

the president issued a proclamation (April 19, 1861) declaring a blockade of all the southern ports, and the Federal government proceeded to purchase and arm a large number of merchant vessels. But it could not at once bring together a navy powerful enough to keep vessels from entering or leaving the blockaded ports. The south not only sent out vessels laden with cotton to the West Indies and to Europe, but received in return military supplies of all kinds. Upon the appearance of Mr. Lincoln's blockade proclamation, Mr. Davis issued one also, granting letters of marque and reprisal to private vessels, against the commerce of the United States. The governments of Great Britain and France now issued proclamations of neutrality, thus making the contest between the north and the south a civil war, according to subsequent decisions of the supreme court.

Congress.

259. At the meeting of Congress (July 4, 1861) the Republicans had a majority in both branches, the free states and border states only, being represented. The house voted to devote its time solely to the business connected with the war. It supported the president's proclamation closing the southern ports against commerce. Bills were passed to define and punish conspiracy against the United States, and to confiscate all private property, including slaves, employed against the Federal government; to authorize a loan; to call out 500,000 volunteers, and to appropriate money for the army and navy. During this session occurred the first battle of Bull Run (July 21, 1861). General Scott had been appointed commander-in-chief of the union forces. The first military movements were in the mountains of western Virginia, and the success of the union army there led many people to suppose that in a short time the rebellious states would be compelled to obedience. Mr. Seward, who was secretary of state, was especially cheerful, and promised that the war should be over in ninety days. The newspapers and people generally urged an immediate movement upon Richmond. Very few had any knowledge of the difficulties before them, and General Scott, pressed by public opinion, gave the order to advance. This resulted in the first serious battle of the war. The union forces were defeated, and retreated in a panic upon Washington. Both armies were yet so new in military training that the confederates gained nothing from their success.

Battle of Bull Run.

Effect of the defeat.

260. This disaster opened the eyes of the north, and the country settled down into a more serious temper. Congress was, more than ever, stimulated to increased energy, and pledged itself to vote any amount of money and any number of men necessary to maintain the union. Propositions to consider negotiations for peace were constantly offered by extreme Democrats, and as constantly rejected by large majorities, on the ground that negotiation with armed rebellion was unconstitutional. General Scott, having resigned the command of the northern armies on account of his age and infirmity, was succeeded by General George B. McClellan, whose successful campaign in western Virginia had given him a high reputation throughout the army. He had a genius for organization, and possessed the unbounded confidence of the people. He immediately set about forming the first great army of the war—the Army of the Potomac—at Alexandria, in preparation for a second advance. But the advance was delayed much too long to suit the impatience of the people and the administration; and as the winter of 1861-62 passed away without any forward movement, the expressions of dissatisfaction became louder and more general. The confederacy also spent the summer and autumn of 1861 in organizing its northern Army of Virginia, under General Beauregard.

McClellan in command.

Confederate army.

Ball's Bluff.

261. In the autumn of 1861 a portion of General Stone's command on the Upper Potomac was sent on a reconnoissance into Virginia, under Colonel Baker, and, being attacked by the confederate general, Evans, at Ball's Bluff, was disastrously defeated. Colonel Baker was among the killed. Although Missouri had not seceded, a strong party, with which the governor was acting, wished to carry it over to the confederacy. A confederate camp near St. Louis was broken up by Captain Lyon, of the regulars, and the St. Louis arsenal was saved to the government. The state was afterward invaded by confederates from Arkansas, who were defeated by Lyon (now a general) at Booneville, June 17, and by Sigel at Carthage, July 5. A large force of confederates under McCullough and Price attacked Lyon at Wilson's Creek (August 10) Lyon was killed, and his command fell back toward the center of the state. Price with 20,000 men then attacked Lexington, which was garrisoned by 2,000 federal troops under Colonel Mulligan. After an heroic defense of three days the little garrison was compelled to surrender (September 20) after their water supply had been cut off for forty-eight hours. General Fremont was now appointed to the command of the western department. He drove Price into the southwest corner of the state, and was about to give battle when he was superseded by General Hunter (November 2). Hunter retreated to St. Louis, with Price in pursuit; but in a fortnight Hunter was replaced by Halleck, and Price was driven into Arkansas. Kentucky, like Missouri, was distracted by dissensions among its own people, and by armies on both sides. General Polk of the confederate army occupied Hickman and Columbus, towns on the Mississippi. There was also a confederate force at Belmont, Missouri, opposite Columbus. Ulysses S. Grant, recently appointed a brigadier-general of volunteers, now first came into notice. He drove the confederates out of Belmont (November 7), but was unable to hold the town because it was commanded by the fortifications of Columbus.

The neutral states.

Wilson's Creek.

Lexington.

Kentucky.

262. From the beginning of the war, the federal government was embarrassed by the question of fugitive slaves. Congress had passed the act confiscating slaves employed in service hostile to the United States. While General Fremont was in command of the forces of the west, he had issued a proclamation declaring the slaves of Missouri confederates free men, but this was countermanded by President Lincoln, who did not wish to estrange those slave-holders, especially in Kentucky, who were still loyal to the union. In Virginia, General Benjamin F. Butler had declared that slaves were "contraband of war," and therefore liable to confiscation by military law. But as yet the disposition of the north was to subdue the south without interfering with slavery; and some union commanders restored to their masters the slaves who had escaped into the federal lines.

Fugitive slaves.

263. Formidable expeditions were fitted out to recapture southern harbors. A combined land and naval force, under General Butler and Commodore Stringham reduced and occupied two forts at Hatteras Inlet, North Carolina, at the entrance to Albemarle and Pamlico Sounds (August 29), and Port Royal harbor, near Beaufort, South Carolina, was secured through the reduction of Forts Walker and Beauregard by the fleet under Commodore Dupont (November 7), and a land force under General Thomas W. Sherman. These successes were of great value to the Federal government. They not only closed important southern ports, but they furnished convenient stations for the blockading fleet. The "paper blockade," as it had been called, was soon made a very effective one along the whole length of the southern coast from the Potomac to the Rio Grande, an achievement which by many had been deemed impossible. Still, in spite of the watchfulness of the federal navy, several confederate men-of-war and privateers sailed out of port, and did much damage to merchant ships. The practice of "running the blockade" became a very profitable

Operations on the coast.

Blockade running.

business; and notwithstanding the danger of capture, which was the case in many instances, the profits on a single successful voyage were so great that adventurers found they could afford to take the risk.

Foreign relations.

261. As has been stated, the south depended largely upon assistance from abroad, and the southern leaders still clung to the hope that they could prevail upon Great Britain and France to recognize the independence of the confederacy. Two commissioners, therefore, Messrs. Mason and Slidell, were sent by the confederate government to London and Paris. They ran the blockade, made their way to Havana, and then embarked for England in the British mail-steamer Trent. Some distance out, the Trent was overhauled by an American man-of-war under Captain Wilkes, the two commissioners were taken off (November, 1861), and carried to Boston harbor, where they were imprisoned in Fort Warren. This action, which was illegal and unauthorized, caused great excitement in England, and came very near causing a collision between the two countries. Lord Palmerston made a peremptory demand for the surrender of the prisoners. The American government had already disavowed the act of Captain Wilkes, which, though it was justified by the British claim of the "right of search," was contrary to American principles. The confederate envoys were therefore promptly released and sent to England. Just before this occurrence President Lincoln requested two confidential agents to visit France and England in order to help the federal cause and avert the danger of foreign war by their influence with the governments and with persons of distinction. The persons selected for this delicate and important trust were Archbishop Hughes, of New York, and Mr. Thurlow Weed. They sailed in November and rendered very valuable service, Mr. Weed in England, and the archbishop in France.

Second year of the war

265. At the beginning of 1862 the war had assumed vast proportions. The number of men under arms on both sides was nearly a million. The confederates held possession of the Mississippi river from the gulf of Mexico to the southern boundary of Kentucky, and occupied a chain of strong positions extending thence through Tennessee and Kentucky to the southwestern corner of Virginia. Between the Alleghanies and the Blue Ridge was the fertile Shenandoah valley, often disputed by both armies. At the east the confederates were posted in great force between the Potomac and the Rappahannock. Now that Delaware, Maryland, Kentucky and Missouri had been saved to the union, it was certain that the battle would be fought out in the territory to the south of them. The plan of the Federal authorities was to open the Mississippi and penetrate the confederate line at the west, while at the same time McClellan attacked Richmond, and a land and naval force continued the process of capturing the southern ports on the Atlantic coast. Simon Cameron, who had been secretary of war, resigned January 20, 1862, and was succeeded by Edwin M. Stanton. All the Federal armies were to move simultaneously on the 22d of February, Washington's birthday, but this order could not be strictly carried out.

The war in the west.

266. The first advance was made in the west. General Grant had entered Kentucky from Illinois, and succeeded in securing the mouths of the Tennessee and Cumberland rivers, two streams which were to serve as military highways by which the Federal armies were to penetrate into the heart of the confederacy. The chief confederate positions between the Mississippi river and the Alleghany mountains were Fort Henry on the Tennessee, Fort Donelson on the Cumberland (both in Tennessee), and Bowling Green and Mill Spring in southern Kentucky. This line of defense was in command of General Sidney Johnston, with headquarters at Bowling Green. Here he was confronted by General Buell's army, the middle one of the three great Federal armies, which came to be known as the Army of the Cumberland. Forts Henry and Donelson formed the center of the confederate line, and was confronted by Grant, whose troops afterwards formed the army of the Tennessee. In January, 1862, General Thomas with the left of Buell's force thoroughly defeated the confederate right at Mill Spring. General Grant, aided by the river fleet under Commodore Foote, now assailed the center. Fort Henry was first attacked and reduced by the gunboats before Grant had time to invest it. The combined forces then assaulted Fort Donelson, which after a brave resistance was captured (February 16) with 15,000 prisoners. The center of the confederate line was now pierced, and Johnston and Polk were compelled to retreat for fear of being cut off. Columbus, Bowling Green and Nashville were evacuated, and the whole of Kentucky and most of Tennessee was in the hands of the Federals. General Buell occupied Nashville; a strong union party showed itself in Tennessee, and Senator Andrew Johnson was appointed military governor of the state.

Forts Henry and Donelson.

267. The confederates formed their second line of defense along the railroad from Memphis to Chattanooga, and began massing their forces at Corinth. The armies of Grant and Buell were to unite and attack the enemy in his new position. Grant moved up the Tennessee river and halted at Pittsburg Landing, or Shiloh, about twenty miles from Corinth, there to await the arrival of Buell. Here Johnston made a brilliant attack upon him with the intention of crushing him before Buell could come up. A terrible battle was fought (April 6 and 7,) in which the confederate leader, who was one of the slain, came very near effecting his purpose. But the federal forces, though driven back at nearly every point, stubbornly resisted, and at the close of the first day, Buell's advance guard came upon the scene. The next morning, Grant, now reinforced, assumed the offensive; and after a fight of several hours, the confederates were driven back to Corinth.

Pittsburg Landing.

On the Mississippi.

268. While these operations were taking place in Tennessee, Commodore Foote with his gun-boats entered the Mississippi with a small army under Pope, and captured Island Number Ten on the day of Grant's victory at Shiloh. Two months later Fort Pillow was abandoned by the confederates, and Memphis at once fell into the hands of the union army. The victory at Shiloh decided the fate of Corinth, an important railroad center, though it was not captured for several weeks afterward on account of the slow advances of General Halleck, who had assumed command of the federal forces at that point. Meanwhile a fleet under Farragut and Porter, with a land force under Butler, had been sent to attack New Orleans. Farragut ran past the batteries and forts at the entrance of the river, attacked and destroyed the ironclads which met him, and captured New Orleans, which was occupied by the army under Butler. Farragut with a part of his fleet then pushed up the river, clearing away all obstacles, passed the batteries at Vicksburg, and met the federal gunboats under Captain Davis, above. Thus the war in the west had been, so far, marked by an almost unbroken series of victories for the federal armies. At the northern boundary of the state of Mississippi the union advance stopped for a time, but all was held that had been won. To gain control of the great river, it was necessary to take Vicksburg, with its outpost, Port Hudson, which, between them, commanded the entrance to the Red river, and thus kept open the communications of the eastern part of the confederacy with its states of Texas, Louisiana and Arkansas. To capture Vicksburg would cut off these states, and greatly cripple the fighting power of the confederate government. The occupation of Chattanooga was also necessary to the success of the union arms. It would open the way into Georgia, and prevent the confederates from recovering any of the lost ground in Tennessee.

New Orleans taken.

269. While the south had met with defeat in the west,

The Monitor and the Merrimac.

it was encouraged by a success in Hampton Roads. The confederates had taken the Merrimac, a former frigate of the United States navy, and transformed her into an ironclad ram, with sloping sides and huge iron beak. On March 8, 1862, this strange-looking craft entered Hampton Roads and attacked the federal fleet lying there, which consisted of five wooden ships of war. The Merrimac destroyed the Cumberland, and also compelled the frigate Congress to surrender. At night she went back to Norfolk. The next morning she was seen coming out again to complete the work of destruction. Suddenly the Monitor, a turreted ironclad vessel, advanced to meet her, and after an obstinate engagement of several hours the Merrimac was compelled to retire. These encounters were remarkable as the first engagements between ironclads and wooden vessels and between two ironclads. The result caused a revolution in the navies of the world; the day of wooden war-vessels was seen to be over, and all the great powers began at once the construction of iron and steel vessels.

Virginia campaign.

270. The military operations in Virginia during the year 1862 offered a strong contrast to the course of events in the west. This was owing partly, no doubt, to the superior ability of the confederate commanders, as compared with their antagonists, partly because on the union side military affairs were too much intermingled with politics. While General McClellan was organizing a splendid army of 200,000 men near Washington, General Banks was ordered to occupy the Shenandoah valley. He began his advance in February, and having, as he supposed, cleared the valley of the enemy, set out with his own corps proper to join McClellan. As soon as he was gone, General Jackson, popularly known as "Stonewall Jackson," hastened to attack the division of Shields which remained in the valley. After a desperate battle at Kearnstown (March 23), Jackson was compelled to retire. Banks returned to the valley and Shields was sent to join McDowell at Fredericksburg. General Fremont now approached from the west, in order to unite with Banks near Stanton. To prevent this Jackson formed the plan of attacking the Federal forces in detail. He nearly succeeded in getting into the rear of the main body with a much larger army than Banks could muster. By a hurried retreat Banks reached and crossed the Potomac, with the confederate cavalry in close pursuit. Shields hastened back to the valley, but his advance guard was defeated at Port Republic (June 8) by Jackson, who, the same day, had checked Fremont at Cross Keys. Having thus saved the valley to the confederates, and obliged the government at Washington to detain for the defense of the capital a large body of troops which McClellan greatly needed for other duty, Jackson joined the confederate army in front of Richmond.

The Shenandoah valley.

The Army of the Potomac.

271. General McClellan concentrated the Army of the Potomac between Washington and Manasses, as if intending to advance against Richmond by that route. He then withdrew his forces and went by water to Fortress Monroe in order to advance up the peninsula between the James and York rivers. Here he was held in check for a month by Johnston at Yorktown, and when McClellan was ready to take the place, the confederates retreated toward Richmond. The union forces followed, and both armies concentrated around Richmond. McClellan gained the battles of Williamsburg (May 5), and West Point (May 9), and advanced within seven miles of the city. A panic broke out in the southern capital, and the confederate Congress adjourned in haste. It was just at this time that Stonewall Jackson, by his brilliant and daring exploits in the Shenandoah valley, obliged the federal government to keep in front of Washington a corps under McDowell which was about to co-operate with McClellan by way of Fredericksburg. The movements of McClellan involved the separation of the two wings of his army by the little river Chickahominy, which by a sudden rise was changed into a wide stream. The confederates under Johnston at once attacked the union left wing at Fair Oaks and Seven Pines. A fierce battle ensued, lasting two days; the result, however, was a union victory. Johnston was wounded, and was succeeded by Robert E. Lee, who retained command of the army of Virginia during the rest of the war.

Fair Oaks and Seven Pines.

272. The absence of McDowell, who was expected to support McClellan's right, compelled a change in the whole plan of operations. Although Lee had been repulsed in an attack on the Federal lines at Mechanicsville (June 26), he fell upon them again at Gaines Mill, the day following, in overwhelming force, and drove them across the Chickahominy with severe loss. Jackson had now reinforced Lee, and McClellan was cut off from his base of supplies on York river. Unable to reunite his wings and regain his base, the union general decided upon the difficult manœuver of establishing another base on the James river. While effecting this change, the union troops were hard pressed by Lee and and Jackson, who, during the period from June 26 to July 1, attacked them at Golding's Farm, Savage's Station, White Oak Swamp, Glendale, etc., and finally at Malvern Hill, where the confederates were signally repulsed. This was the last of a series of engagements known as the "Seven Days' Battles," in the course of which McClellan lost over 15,000 men. Lee suffered almost as much. The union army had now reached the James river, and established itself in a position from which it could not be driven.

The "Seven Days' Battles."

273. Lee and Jackson then turned their attention toward Washington, which was defended by an army under General Pope. Pope's forces stretched along the Rappahannock and Rapidan to the Shenandoah valley. General Banks held a position at the western end of the line, and was attacked by Jackson at Cedar Mountain. Lee followed close behind, and the two generals forced Banks back and then attacked Pope. McClellan received orders from Washington to join Pope, and a portion of his forces came up in time to take part in the second battle of Bull Run, August 29. Pope's army was put to rout, Washington was threatened and the whole country was wild with excitement. Lee now led his victorious army across the upper Potomac and entered Maryland. McClellan, gathering up the remants of the two defeated armies, followed and confronted the confederates at Antietam creek. A desperate struggle took place (September 17). It left each army exhausted, but the victory remained with the union forces. The confederates recrossed the Potomac and retired up the Shenandoah valley. The administration was dissatisfied with McClellan's course, and his command was given to General Burnside. The new commander at once moved toward Richmond, proposing to cross the Rappahannock at Fredericksburg. Here he found Lee posted upon the hills behind the town. Burnside crossed the river, and, forming his army in three divisions, attempted to storm the heights (December 13). It was a day of terrible slaughter for the federal troops. They were repulsed with the loss of twelve thousand men, the army was demoralized and retreated to the north side of the river. Burnside was then superseded by General Hooker. The close of 1862 thus found the opposing armies in nearly the same positions as at the beginning of the war. At the north gloom and discouragement prevailed. At the state elections held in the autumn there was a majority against the administration in several of the northern states, and the result of the campaigns on the Potomac gave great strength to the peace party, which believed that the attempt to subjugate the south ought to be abandoned.

The second battle of Bull Run.

Battle of Antietam.

Fredericksburg.

274. In June 1862 the great union force at Corinth was divided, Buell's army marching eastward to seize

Campaigns in the west.

Chattanooga, while Grant's remained at Corinth till it should be ready to start for Vicksburg. The campaign was so badly managed by Halleck that the confederates, under Bragg, seized Chattanooga before Buell's arrival. They were thus enabled to press him so vigorously that he had to be largely reinforced from Grant's army. Thus weakened, Grant was unable to advance for several months. During the summer of 1862 the confederates made a great effort to repair the disasters they had suffered on the Tennessee and Mississippi rivers by an invasion of Kentucky. An army under Kirby Smith moved from Knoxville, East Tennessee, while another, under Bragg, marched from Chattanooga. The confederate general, Smith, defeated General Nelson near Richmond, Kentucky, August 30, and advanced toward the Ohio, threatening Cincinnati. General Lew Wallace, however, compelled him to fall back to Frankfort. Bragg in the meantime hastened toward the city of Louisville. Buell, leaving Nashville, by forced marches reached the place one day ahead of Bragg. Being reinforced he slowly pushed the confederates back. Bragg formed a junction with Smith at Frankfort, and four days later a severe but indecisive battle was fought at Perryville (October 8). The confederates then retreated through Cumberland Gap.

Operations in Kentucky.

275. During Bragg's campaign, the confederate army in Mississippi under General Van Dorn made an attempt to turn Grant's left wing at Corinth, and thus force him back down the Tennessee river. This wing was commanded by General Rosecrans, who defeated Price at Iuka, a few miles from Corinth, September 19. On October 4, Van Dorn and Price together attacked Corinth, but were repulsed by Rosecrans with a loss of five thousand men, and pursued forty miles. Soon after this Rosecrans superseded Buell in command of the army of the Cumberland. Bragg had advanced to Murfreesborough, in central Tennessee. There Rosecrans attacked him (December 31), and a bloody battle was fought, in which 40,000 men were engaged on each side, and each lost more than 10,000. This engagement is generally known as the battle of Stone river. It was indecisive. On January 2, 1863 Bragg renewed the attack with great vigor, but this time he was signally defeated and compelled to retire to Chattanooga.

Iuka and Corinth.

Stone river.

276. While these battles were being fought, Grant had begun his first movement against the strong and important post of Vicksburg, on the Mississippi. His plan was to march from Jackson, Mississippi, while Sherman, with his 40,000 men, and Porter with a fleet of gunboats, descended the river from Memphis. The movements were made according to this arrangement, but Van Dorn's cavalry succeeded in getting in Grant's rear and cutting off his supplies. This compelled Grant to abandon his march to Jackson. Sherman and Porter attacked the bluffs north of Vicksburg, but were repulsed with heavy loss (December 29). Hearing of Grant's misfortune they returned to Memphis.

277. After Hatteras Inlet to Pamlico Sound had been captured, it was next resolved to attack the confederate position on Roanoake Island, which commands the passage between Pamlico and Albemarle Sounds. A land and naval expedition under General Burnside and Commodore Goldsborough took the forts and batteries of the island (February 8, 1862), captured a confederate flotilla, occupied Newbern, North Carolina (March 14), and reduced Fort Macon, at Beaufort, April 25. Expeditions from Port Royal under Commodore Dupont took possession of Darien and Brunswick, Georgia, and of Jacksonville, Fernandina, and Saint Augustine, Florida. April 11, 1862, General Gilmore captured Fort Pulaski on the Savannah river. Thus the port of Savannah was completely closed, although no effort was made for some time to occupy the city.

Affairs on the coast.

278. During the movements of the armies in 1862, Congress had not been idle. It was chiefly occupied in measures connected with the prosecution of the war. Its most far-reaching action was in the provision for a uniform national currency. At the beginning of the war the government had borrowed large sums of money to defray expenses, and it continued to borrow, as new demands arose. The result was similar to that which occurred in the Revolutionary war. The promises to pay became less valuable as compared with gold, which was the standard of value throughout the civilized world. The banks in the several states could no longer obtain gold without paying a high price for it; and at the end of 1861 they suspended specie payments. In order to provide a currency for the people, a bill was passed by congress, early in 1863, authorizing the issue of notes by the United States treasury. These notes received the popular name of "greenbacks," from the color of the paper on which they were printed; and to insure their success they were declared by Congress to be "legal tender" (February 25, 1862). Early in 1863, Congress passed an act establishing national banks. Heretofore the states had incorporated all banks, and the bills of each bank were seldom current except in its own neighborhood. By the national banking system, the banks were to be organized, and United States bonds deposited at Washington. The banks were then permitted to issue notes up to ninety per cent. of the value of the bonds deposited, and the notes, being thus secured, became current in every part of the country. The national banks are still in operation. A homestead bill was passed, which assigned public lands to actual settlers at reduced rates. Congress also prohibited slavery in the District of Columbia; slaves of insurgent were ordered to be confiscated; and the army was forbidden to surrender fugitive slaves to their masters. It provided for the construction of a Pacific railroad and telegraph, and began a further development of the system of granting public lands to railway corporations.

Paper currency.

National banks.

Congress.

279. Since the south had brought on the war in defense of slavery, the abolition sentiment had spread very rapidly in the north, and it had now become supported by the military needs of the hour. At the beginning of the conflict the union leaders and people generally had not favored any interference with slavery, but circumstances had proved their position to be untenable. President Lincoln, who watched anxiously every movement, was convinced that the time had come when the federal government could no longer attempt to carry on the war successfully and spare the system of slavery, which was perceived by every discerning man to be at the foundation of the confederacy. He therefore announced (September, 1862,) that unless the revolting states should return to their allegiance by January 1, 1863, he should declare the slaves in these states to be free. It was a formal notice given out of respect to law; no one seriously expected that it would be regarded by the confederate states. And it was not. They only grew more firm in consequence of the action taken. On the first day of January, 1863, in accordance with his notice, the president issued his celebrated Proclamation of Emancipation. This act caused much discussion. Mr. Lincoln could not, legally, issue such a declaration, for the constitution gave him no authority to abolish slavery. But he acted on the principle of military necessity, advocated by John Quincy Adams in his speech of April 14, 1842, in which he said: "Whether the war be civil, servile, or foreign, I lay this down as the law of nations: I say that the military authority takes for the time the place of all municipal institutions, slavery among the rest. Under that state of things, so far from its being true that the states where slavery exists have the exclusive management of the subject, not only the president of the United States, but the commander of the army, has power to order the universal emancipation of slaves." However the case may be, the president's course was dictated by clear common sense and wise statesmanship. The events of the pre-

Emancipation.

Proclamation.

ceding summer had shown that the war was far from being at an end. The cutting off of the cotton supply had been a general calamity, and the distress produced in consequence created a fear lest England and France should unite in an attempt to put an end to the contest. But the proclamation changed all this. By it the struggle was converted into a crusade against slavery, and in this light foreign intervention was now simply impossible, owing to Great Britain's attitude toward slavery. Moreover, should the federal government be successful, the question of slavery would practically be settled forever, for its abolition would be certain when the union was re-established. One of the first results of the act was the formation of regiments of Negro soldiers. negro soldiers. An attack made by one of these regiments, under Colonel Shaw, upon Fort Wagner, in Charleston harbor, though unsuccessful, showed so much bravery that the prejudice against negro soldiers disappeared, and great numbers were enrolled.

Third year of the war. 280. General Hooker spent three months in reorganizing and strengthening the Army of the Potomac. At the end of April, 1863, he began his march toward Richmond with 120,000 men. Sending the sixth corps, under Sedgwick, to cross the Rappahannock below Fredericksburg, he threw his main body across the river a few miles higher up, and before Lee understood his purpose he had advanced to Chancellorsville. Here Battle of Chancellorsville. Lee won one of the most marked of his victories (May 1 to 4), with only one-half as many men as Hooker commanded. Jackson made a magnificent attack upon the union right, taking it by surprise, and drove it back in confusion. Sedgwick, on the left, had carried the heights of Fredericksburg and was pushing on toward Chancellorsville, when the disaster on the right enabled Lee to face him with the main confederate force. Sedgwick was compelled to retire during the night which followed the 4th of May, and Hooker recrossed the Rappahannock the next night. Hooker's loss was 16,000; Lee's was 12,000; but the confederates further sustained a severe disaster in the death of Stonewall Jackson.

Invasion of Pennsylvania. 281. Lee now repeated the maneuver he had practiced after defeating General Pope. Turning Hooker's right flank, he pushed on through the western part of Maryland into Pennsylvania, so as to threaten Philadelphia, Baltimore, and Washington. There was intense alarm at the north, and reinforcements were hurried into Pennsylvania from all quarters. In consequence of a disagreement with General Halleck, Hooker resigned the command of the Army of the Potomac, and it was given to General George G. Meade. The two hostile armies, each 100,000 strong, were now moving in parallel lines, with the Blue Ridge and South Mountain range between them. On the 1st Battle of Gettysburg of July they came into collision at Gettysburg. A tremendous battle was fought, lasting until the close of July 3. It resulted in the defeat of Lee, with a loss of nearly 40,000 men; Meade's loss was 24,000. This battle was one of the greatest of modern times, the loss on both sides being more than one-third of the whole number engaged. It was also the turning point of the civil war. The south was never able to collect so fine an army again, and never recovered from the exhaustion of the Gettysburg campaign. Lee moved slowly back to his old position on the Rapidan, where he and Meade held each other in check until the following spring. Many in the north were inclined to believe that Lee's former successes had been due to Stonewall Jackson's ability, and that he had lost his prestige upon the death of that brave commander. But the campaign of 1864 was to prove the contrary.

The Vicksburg campaign. 282. On the next day after the battle of Gettysburg, General Grant gained a decisive victory on the Mississippi. Having failed in several attempts to take Vicksburg from the north, he now determined to transfer his army to the south side of this strongly fortified place. To do this it was necessary to cross the river, march down its west bank, cross again below Vicksburg, and march up the east bank, while the fleet, which had run past the batteries of Vicksburg after the capture of New Orleans, would have to pass them again in order to transport the army over the river and protect the crossing. This plan was carried out in April. Commodore Porter performed his task successfully under a heavy fire, and on the 29th of April opened a cannonade upon Grand Gulf, at the mouth of the Big Black river, where it had been determined to attempt a crossing. The confederate batteries here proving too strong, the fleet ran past them, also, and the crossing was made at Bruinsburg, a few miles below. Grant now pushed rapidly forward. The confederates were beaten at Port Gibson, and compelled to evacuate Grand Gulf. McPherson and Sherman captured Jackson, the capital of Mississippi, and a place Jackson. of great military importance on account of its railway connections. The union army then turned, fell upon the confederate general, Pemberton, who had marched out of Vicksburg to unite with Johnston, defeated him at Champion Hills (May 16), and at the crossing of the Champion Hills and Black River Black river (May 17), and at last shut him up in Vicksburg. After a siege of forty-five days Pemberton surrendered, and the great confederate stronghold of the Capture of Vicksburg. west, with 27,000 prisoners, fell into the hands of the victorious Federals. Port Hudson, under siege at the same time, could no longer hold out, and the Mississippi, as President Lincoln said, "ran unvexed to the sea." This was the heaviest blow that the confederacy had as yet received; its whole western zone was now virtually conquered, and it became possible to concentrate greater union forces against its middle and eastern zones. The news of Gettysburg and Vicksburg made the Fourth of July, 1863, a day of rejoicing in the north, and of mourning in thousands of bereaved homes.

283. The Vicksburg campaign marked the decline of the confederate fortunes in the west, as the Gettysburg campaign did in the east. In the meantime the people had learned to give a more careful attention to the welfare of the soldiers who were bearing the brunt of the conflict. The Sanitary Commission, the Christian The Sanitary and Christian Commissions. Commission, and other voluntary associations, had been organized, and were doing a grand work for the moral and physical needs of the men in the field; and this care was not confined solely to northern troops, but was often extended to the confederates as well. The expenses of the National government for prosecuting the war now amounted to $2,000,000 per day on an Government expenses. average, and notwithstanding the heavy taxation imposed upon the country the debt had increased to $500,000,000 by June, 1862; during 1863 it was double that amount; by June, 1864, it had grown to $1,700,000,000; and at the end of August, 1865, it attained its maximum, $2,845,907,626. But the best of care and judgment was exercised in the use of these vast expenditures. The army was constantly supplied with improved weapons and munitions of war; the blockading fleets were kept in perfect order, and everything was done to insure the success of the union arms.

284. As early as April, 1862, the confederate Con- Conscription. gress had passed a conscription act, enrolling in the army all adult white males below a certain age, but as the war went on the demand for men became continually greater and the conscription was made more sweeping. Toward the end of the war every white man between the ages of seventeen and fifty five was held liable to military service, and in practice the only limit was physical incapacity. The federal government also was compelled to take almost a similar course. In March, 1863, Congress passed an act for the enrollment of all able-bodied male citizens between the ages of eighteen and forty-five, and the president was authorized to make drafts for military service,

those between twenty and thirty-five to be first called upon. Under this law a call for 300,000 troops was made in May. As the full number was not made up by volunteering a draft was ordered to supply the deficiency. The first attempts to carry it out resulted in forcible resistance in many places, the most notable being the "draft riots" in New York city in July, just after the battle of Gettysburg. These riots lasted four days in that city. During this time New York was in the hands of a lawless mob, many shocking murders were committed and $2,000,000 worth of property was destroyed. All opposition was at length put down, but exemptions and substitute purchases were freely permitted, and the states endeavored to fill their respective quotas as far as possible by offering bounties as a stimulus to volunteering.

Draft riots.

285. After his renowned victory near Murfreesboro, Rosecrans remained quiet for a period, preparing for a new campaign. Late in June he began a series of skillful movements against Bragg which compelled the confederate general to fall back upon Chattanooga. Early in September Rosecrans forced him to evacuate the place by threatening his communications. The union general followed him across the Tennessee river and was thus beyond the strong position of Chattanooga. General Bragg, having been heavily reinforced from Virginia, turned at Chickamauga creek to give battle. A severe engagement was fought (September 17-20, 1863) in which Longstreet routed the right of the union forces, but the wonderful skill and bravery of General Thomas, who commanded the left wing, saved the federal army and secured its retreat to Chattanooga. Bragg having gained possession of the mountains around the place cut off almost all avenues of further retreat and laid siege to Chattanooga. The government at Washington had committed the mistake of dividing the union forces, for while Rosecrans was left to face an army greatly superior in numbers, under General Bragg, General Burnside was sent into east Tennessee with an independent command. Bragg was now so sure of Rosecrans' defeat that he dispatched Longstreet with a part of his army to attack Burnside at Knoxville. In October Rosecrans was superseded by Thomas, and Grant was put in command of all the western armies. He was joined at Chattanooga by two corps under Hooker from the Potomac. General Sherman came up from Vicksburg with a greater part of the army of the Tennessee. Bragg's positions on Lookout Mountain and Missionary Ridge were now assaulted. The former was successfully stormed by Hooker (November 24), part of the fighting taking place amidst a thick mist which covered the summit, hence this has been called the "battle above the clouds." On the next day Missionary Ridge was carried by the main army, Hooker on the right, Thomas in the center and Sherman on the left. Bragg was driven from all his positions back to Dalton and was soon afterward superseded by General J. E. Johnston. Longstreet raised the siege of Knoxville and retreated across the mountains into Virginia to join Lee.

Chattanooga.

Chickamauga.

Lookout Mountain and Missionary Ridge.

Charleston.

286. Many attempts had been made to reduce Charleston, South Carolina, the strongest, as well as the most important of the southern seaports, but without success. At length Fort Wagner was taken (September 7) after a tremendous bombardment by the Federal fleet and Gillmore's batteries; Fort Sumter, also, was reduced to ruins. The blockading vessels were thus enabled to enter the harbor, and the port of Charleston was entirely closed. Taking advantage of every loophole in the British foreign enlistment act, the confederate authorities had succeeded in fitting out several formidable cruisers, which, in the course of the year 1863, did immense damage to American commerce. Whenever they were closely pursued by United States vessels they took refuge in neutral ports, and then put out to sea again upon the first favorable opportunity. The most active ones were the *Florida*, the *Alabama* and the *Georgia*. The *Florida*, built at Liverpool, after having captured twenty one vessels, was seized in the harbor of Bahia, Brazil (October, 1864). The *Georgia*, built at Glasgow, put to sea in April, but was captured after a short cruise by the United States frigate *Niagara*. The most important of the confederate cruisers was the *Alabama*. She was built at Liverpool for the confederate captain, Semmes. The British government was urged by the American minister, Mr. Adams, to enforce its own laws, and prevent her going to sea; yet she was allowed to set sail in July. After destroying more than sixty vessels, she was met by the United States steamer *Kearsage*, commanded by Captain Winslow, off Cherbourg (June 19, 1864), and after an hour's action the *Alabama* was sunk

Confederate cruisers

The Kearsage and Alabama.

287. At the beginning of 1864, several detached operations were carried on which, though attracting much attention at the time, had but little direct bearing upon the closing campaigns of the war. General Sherman made his raid nearly across the state of Mississippi, destroying railroads, bridges and supplies. General Seymour, leading a union expedition into Florida, was defeated. General Banks was sent up the Red river to attack Shreveport, and bring away cotton. The expedition ended in failure and disaster. General Rosecrans was appointed to command in Missouri. He succeeded in repelling an invasion by Price, who was finally driven from the state. General Forrest, with a confederate force made a raid into Tennessee and Kentucky, and captured Fort Pillow (April 12), where a number of negro troops were massacred.

Minor operations.

288. The success of Grant in the west had made him the chief figure in the war. In March, 1864, he superseded Halleck as commander-in-chief, with the rank of lieutenant-general. He at once took personal direction of the campaign against Richmond, while retaining Meade in immediate command. The army of the Potomac was re-organized in three corps, under Hancock, Warren and Sedgwick, to which was soon added another under Burnside, while General Philip Sheridan was called from the west, and appointed to the command of all the cavalry in the eastern army. Lee's forces, which comprised the flower of the southern troops, had otherwise been divided into three corps, under Generals A. P. Hill, Ewell and Longstreet. Sherman had been left in command of the three western armies of the Ohio, the Cumberland, and the Tennessee, and he was to oppose Johnston at Dalton. According to arrangement, a simultaneous advance was made in Georgia and Virginia, early in May. The army of the Potomac, numbering about 125,000 men (nearly twice as many as Lee's), crossed the Rapidan and entered the "Wilderness" on the other side. It was Grant's object to push through this difficult country as rapidly as possible and get between Lee's army and Richmond. In pursuing the direct route through Fredericksburg to Richmond, the union army encountered a series of strong defensive positions, of which Lee availed himself with consummate skill. The battles began on the 5th, and continued until the 12th without interruption, both sides fighting with the utmost bravery and suffering severely. Lee was steadily forced back, and on the 9th Grant was clear of the Wilderness with his forces concentrated near Spottsylvania court-house. Here there was furious and obstinate fighting for ten days, with scarcely any intermission. Then followed the battles of North Anna and Cold Harbor in which the union losses were terrible. Having now reached the Chickahominy, and finding it impossible to break through Lee's lines of defense, Grant crossed the river, and moving far to the right of his adversary, transferred his army beyond the James to assail Richmond from the south. This involved the reduction of the strongly-fortified town of Petersburg, on the Appomattox, practically a part of

Grant in the east.

Sherman.

The Wilderness

Petersburg.

the defenses of Richmond, from which it was twenty miles distant. It also brought the Federal lines into dangerous proximity to Lee's railroad communications with the south. At this point, therefore, the confederate commander stationed the best part of his troops, and stubbornly resisted all Grant's efforts to extend his lines further to the southwest or to reach the railroads.

289 A long siege of Richmond and Petersburg was now begun early in June, but neither army remained inactive. In July, Lee sent Early into the Shenandoah valley, with a corps strong enough to menace Washington, hoping that Grant might be induced to call off troops from Petersburg. The chief result of Early's movement was the burning of Chambersburg, and the capture of a quantity of supplies. Grant put Sheridan in command of the valley, who defeated Gen. Early at Winchester (September 19), and at Fisher's Hill two days later, after which he destroyed all the rich crops in the valley and carried off the cattle, so that the confederates might not be tempted to repeat the raid. But Early, having obtained fresh troops, suddenly fell upon the federals at Cedar Creek (October 19), driving them back in great confusion. Sheridan was absent when the battle was fought, but, getting intelligence of it, he rode rapidly up the valley, rallied his men, who were, however, being enheartened by their respective commanders, and scattered Early's forces, which never met Sheridan again as a compact army during the remainder of the war.

Cedar Creek.

Meanwhile, Grant had succeeded in getting possession of a few miles of the Weldon railroad, upon which Lee depended for transportation, but the confederate general brought his supplies in wagons round that portion held by the federals. The two armies now remained in comparatively the same position until the following spring.

290. The western campaign in 1864 began at the same time as Grant's movement in Virginia Sherman advanced from Chattanooga with 100,000 men under Thomas, McPherson, and Schofield, against Johnston's force of 75,000. The objective point of the campaign was the capture of Atlanta, Georgia, a very strongly fortified place about one hundred miles south of Chattanooga, and the chief manufactory of the confederate military supplies. Johnston, with his weaker force, dared not risk a regular battle, but he made the best use of the various defensive positions which the rough and mountainous country afforded. By a series of masterly flank movements Sherman compelled him to evacuate one position after another. Severe battles were fought at Resaca (May 15), Dallas (May 25), Lost Mountain (June 14), and Kenesaw Mountain (June 27). By the 10th of July Johnston was intrenched behind the defenses of Atlanta, and the two armies were facing each each other with the Chattahoochee river between them. Johnston's retreat had been conducted with great skill, but he was now superseded by Hood (July 17), who was known as a "fighting general." Hood at once proceeded to carry out the active policy of the confederate government, and assumed the offensive. Before the end of the month he had made three furious assaults on the union lines and was repulsed in every one of them. The federals, however, sustained a heavy loss in the death of General McPherson At length, by fine manœuvering, Sherman succeeded in gaining the rear of Atlanta, and cutting the supply railroads. This obliged the confederates to retreat in all haste, and on the 2d of September, Sherman was able to telegraph to Washington that Atlanta was won

The Atlanta campaign.

Operations at Atlanta.

291. Hood, by the direct command of Davis, now made a fatal mistake, which materially hastened the downfall of the confederacy. He moved northwestward by Tuscumbia and Florence into middle Tennessee, thinking that Sherman would follow him in order to defend that state. But Sherman was no more to be controlled by this device than Grant had been by Early's raid into the Shenandoah. He divided his army, sending back part of it under Thomas to take care of Hood, while he himself prepared to continue his advance through Georgia. Hood, moving northward toward Nashville, was met and defeated at Franklin (November 30), with heavy loss, by Schofield. The confederate general arrived at Nashville with about 44,000 men. The union forces awaited him there behind the fortifications. Thomas, having completed his preparations, suddenly moved out of his works and fell upon the confederate lines (December 15). The battle lasted two days and ended in the utter rout and demoralization of Hood's forces. Thus one of the two great armies of the confederacy was scattered, never again to be united. Of all the battles fought in the course of the war, this was the most complete victory.

Hood in Tennessee.

Nashville.

292. While these things were going on, the presidential election of 1864 took place. Some of the more radical men, dissatisfied with what they called Mr. Lincoln's timid and irresolute policy, met in convention (May 31) at Cleveland, Ohio, and nominated John C. Fremont for the presidency. Mr Lincoln and Andrew Johnson were nominated (June 7) for president and vice-president by the Republican National Convention at Baltimore. The Democratic National Convention declared in its platform that the inability of the federal government to restore the union by war was demonstrated by four years of failure; that the constitution had been violated in all its parts under the plea of military necessity, and that a cessation of hostilities ought to be obtained It nominated George B. McClellan and George H. Pendleton as president and vice president. This declaration of the peace Democracy that the war was a failure, when all things were now pointing toward the final success of the north, caused many doubtful votes to be cast for the Republican candidates, and assured their election. When the electoral votes were counted, Lincoln and Johnson had received 212, McClellan and Pendleton 21.

Presidential election of 1864.

293. Sherman had burned Atlanta, destroyed the railroads and telegraphs in his rear, sent back the sick and wounded, and much of the baggage, and set out (November 14) on his "famous march through Georgia." His army, 65,000 strong, was spread out over a breadth of forty miles, subsisting mainly on the produce of the country. For a month scarcely anything was heard of him at the north, when he suddenly turned up at Savannah, Ga. He had met with but little opposition on his route. The confederates had numerous bodies of troops which might have been concentrated to oppose his march, but he had threatened so many points and kept the enemy in so much doubt as to his objects that they could not tell for which point he was making. On December 13 Fort McAllister was taken by assault, and on the 20th Savannah was evacuated by the confederates, Sherman sending the news of the capture to president Lincoln as a "Christmas gift." He also sent word that the confederacy was nothing but a shell, and that he was ready with his victorious army to march northward.

Sherman's march to the sea.

Savannah.

294 The only important ports, except Galveston, which remained open to the confederacy in the summer of 1864, were Mobile in Alabama, and Wilmington, in North Carolina. The forts commanding the entrance to Mobile Bay were captured (August 5) and the port was closed. On January 16, 1865, Wilmington, North Carolina, was taken by a combined land and naval force, under General Terry and Commodore Porter. On the day before this event, Sherman had begun his northward march, passing through Columbia, to Fayetteville, North Carolina. This movement had forced the evacuation of Charleston and other coast cities, and their garrisons had been concentrated under Johnston as a last hope. The military support of the confederacy now rested on the army which Lee commanded within the intrenchments of Richmond and Petersburg, and on the remnant of the western forces with which

Mobile and Wilmington.

Sherman's march to the north.

Johnston was trying to check Sherman's advance. Some sharp fighting took place north of Fayetteville, but Goldsborough was reached March 21, and Johnston retreated to Raleigh. Sherman pushed on after him, but events in Virginia were fast rendering a contest in North Carolina unnecessary. While the union army occupied Goldsborough, Sherman took a steamer on the coast and hurriedly visited the James river, where he met the president, General Grant and General Meade, and arranged with them the plan of operations for the future. During Sherman's march through North Carolina, Sheridan had led a column of cavalry up the Shenandoah valley to destroy Lee's communications in the rear of Richmond. He passed along the James river, doing great damage to the canal and railroads, and joined the main army in front of Petersburg just as Sherman arrived there for his conference with the president and Grant.

Fall of the confederacy.

295. The situation of Lee was now becoming desperate. He determined to abandon Petersburg and Richmond, move by way of Danville, and effect a junction with Johnston. With this purpose he made one desperate attempt to break the center of the union lines at Fort Steadman, intending under cover of the attack to withdraw his force. The effort failed, and Lee was repulsed with heavy loss. Grant resumed his attempts to push his lines further round to the south of Petersburg. Sheridan was put in command of the extreme left. Here he attacked Lee's right at Five Forks (April 1), destroyed the Southside railroad, and maintained his position. To avoid being outflanked Lee was compelled to lengthen out his line, already too thin. The next morning (April 2) Grant made a general assault, and carried his army within the lines of the Petersburg defences. Lee retreated, with the intention of bringing his forces and Johnston's together for a final stand, while the advance guard of the union army entered Richmond. The confederate authorities hastened to escape to Danville, having first set fire to the shipping, tobacco warehouses, etc., at Richmond. No time was lost in celebrations of the victory. Grant pressed on in the pursuit of Lee with all vigor. He had so disposed the federal army that the escape of the confederates was almost impossible. The confederate forces were headed off at Appomattox Court House, where Lee surrendered (April 9, 1865). The terms of surrender offered by Grant were very generous; all private property belonging to officers and soldiers was to be retained, the men were even allowed to keep their horses, "because," Grant said, "they would need them for the work on their farms." Officers and men were at once set free on parole, with the understanding that so long as they did not violate their parole, nor break the laws, they would not be disturbed by the federal government.

Five Forks.

Richmond.

Surrender of Lee.

Surrender of Johnston.

296. Sherman had begun his final operations against Johnston when the news arrived of the surrender of Lee. Johnston thereupon capitulated (April 26) on much the same terms that had been accorded to the confederate army in Virginia, after an unsuccessful effort at a more favorable settlement. All the other confederate forces in the field also surrendered, and the great civil war came to an end. The news was received with an outburst of joy at the north. Mr. Lincoln had begun his second term on March 4, 1865. At that time the end of the struggle was plainly near, and the president in his inaugural address had already expressed the hope that there would be a reconciliation between the two sections. He said: "With malice toward none, with charity for all, with firmness in the right as God gives us to see the right, let us strive to finish the work we are in, to bind up the nation's wounds, to care for him who shall have borne the battle, and for his widow and for his orphans; to do all which may achieve and cherish a just and a lasting peace among ourselves and with all nations."

297. The public rejoicings over the capture of Richmond were clouded by the death of the wise and noble Lincoln. He had gone to Ford's theater on the evening of April 14, and was sitting in his box, when an actor named J. Wilkes Booth entered unperceived and shot the president through the head, crying: "The south is avenged. *Sic semper tyrannis.*" Almost at the same time one of Booth's accomplices named Payne attempted to assassinate Secretary Seward, who was ill at home, and wounded him seriously but not fatally. There had been a plot on the part of some desperate characters when the confederacy fell, to destroy the leaders of the federal government, but their plans were accomplished in part only. The chief parties implicated perished miserably. Booth and Payne escaped for a time, but were soon caught. Booth was killed while resisting arrest. Payne and three others were hanged, and several persons concerned in the plot were sentenced to imprisonment. The president lingered a few hours, and died without giving any sign of consciousness. His death caused the deepest sorrow, not only in the north, but in the south as well, and throughout all the civilized world. He had won the abiding love and trust of the people, and his name will forever be linked with that of Washington; for he was in many ways the second founder of his country.

Assassination of Lincoln.

Seward.

298. Jefferson Davis, while trying to escape, was captured by a detachment of General J. H. Wilson's cavalry at Irwinsville, Georgia, and was sent to Fortress Monroe. Here he was confined a close prisoner for a long time on charge of treason. He was at last liberated on bail furnished by Horace Greeley and others, and all proceedings against him were finally abandoned. In fact, the glorious triumph of the government of the United States was in no wise sullied by any dismal executions for treason. The assassination of Lincoln checked for a time the movement which had already begun for the restoration of the seceding states. People who had been ready in their joy to make peace with those who had been leaders in the confederacy now were ready to believe that the spirit which had brought on the war was unchanged. There was a demand that the laws against treason, passed by Congress during the heat of the war, in 1862, should be rigidly enforced. These laws prescribed that the punishment of treason and rebellion should be death, or fine and imprisonment. But a wiser judgment prevailed. There was no hanging for treason. The leaders of the confederacy were never brought to trial. The president of the confederate states was suffered to go free; and the vice-president, before his death, became an efficient and respected member in the Congress of the United States. For a long time, however, all persons who had previously taken oath of allegiance to the federal government, and then had broken it by joining the confederacy, were debarred from holding any office under the government of the United States.

Jefferson Davis.

299. At the close of the war the federal armies numbered about 1,000,000 men, of whom nearly 600,000 were present in the field. The number of confederate soldiers surrendered and paroled was, 174,000, besides whom there were 63,000 prisoners in the hands of the Federals. The whole number of men who served on the union side during the war was about 1,500,000. Of these, 96,000 were killed, 184,000 died of disease while in the service; many thousands more died of wounds or sickness after being discharged. The armies of the confederacy are supposed to have reached their strongest point at the beginning of 1863, when they numbered about 700,000. There was great dissatisfaction among the southern people at the manner in which Jefferson Davis conducted the war; and the arbitrary attempts of the confederate government to force men into the ranks, aroused, at last, a spirit of opposition. During the latter part of the war desertions had become very frequent; and this fact, taken in connection with the losses

Number men in t armies.

in battle, and from disease, caused a great reduction in the numerical force, so that at the end of the struggle, it is doubtful whether the confederate armies contained more than 200,000 men. As soon as possible after organized resistance had ceased, the Federal armies began to be disbanded. The men were discharged at the rate of about 300,000 a month, 50,000 being retained in service as a standing army.

300. The expenses of the Federal government amounted at one time to three and a half million dollars a day. By August 31, 1865, the whole debt had reached its maximum, amounting to about $2,845,907,626. Some $800,000,000 of revenue had also been spent mainly on the war. Beside the regular outlay by the government enormous sums were spent by states, cities, counties and towns, in bounties to volunteers, and by the sanitary commissions and other societies for the comfort of sick and wounded soldiers, and for the whole army in general. The expenses of the confederate government can never be known. Its debt was estimated at about $2,000,000,000, but this was wiped out by the failure of the confederacy, all its bonds and notes becoming worthless. The amount of property destroyed by the union and confederate armies can scarcely be estimated, and the money value ($2,000,000,000,) of the slaves in the south fell a sacrifice to the war. In the United States funds were raised by the sale of bonds, the issue of paper money, of "greenbacks," and the imposition of heavy taxes, including for some years a tax on incomes. The notes became greatly depreciated, so that in July, 1864, the price of gold in paper currency was nearly three dollars. Gold and silver almost disappeared from circulation.

Confederate finances.

301. The finances of the confederacy were in a ruinous condition long before the end of the war. It could make no drafts on the future, by bond issues, and it was a very difficult matter to find purchasers for southern bonds. As expenses increased, they had to be met by paper issues, and each issue was accompanied by a corresponding decline in value, until a dollar in coin was worth fifty dollars in paper. Large sums were required to buy even the most necessary articles. Boots were worth two hundred dollars; shoes, one hundred and twenty-five dollars; coats, three hundred and fifty dollars; pantaloons, more than one hundred dollars; flour, two hundred and seventy dollars per barrel; potatoes, twenty to twenty-five dollars per bushel; bacon, ten dollars per pound; meal, sixty-five to seventy-five dollars per bushel; butter, sixteen dollars per pound. Other things were proportionately high in price; luxuries of all kinds had disappeared, and almost the entire population was reduced to extreme poverty.

VIII.—THE RESTORATION OF THE UNION.

302. At the beginning of the war the greater part of the northern people was opposed to any interference with slavery, and the federal government announced its determination not to meddle with the question. But the progress of the war compelled it to a different course. Hence, first came the Proclamation of Emancipation; then in February, 1865, congress passed the thirteenth amendment to the constitution, abolishing slavery in the United States forever. After the war was over the first wish of those who had been most prominent in putting down the confederacy was that the union should be restored as quickly as possible to its former state, with the exception of slavery. It was to be many years, however, before the warring sections of the union could be transformed into a harmonious nation. The war had devastated the country in which it had been engaged. The people on each side had suffered in the loss of friends, home and property, and could not at once be reconciled. The great change which had taken place in the abolition of slavery reached to the very foundations of southern society and industry.

The 13th amendment.

303. Upon the death of Mr. Lincoln, Vice-President Johnson succeeded to the office of president, and to the difficult task of the reconstruction of the rebellious states. He had been selected by the republican party as representing the union men of the south. He was not, however, in full sympathy with the Republicans, and it soon became evident that there was a breach between the president and Congress, which constantly widened. The first business engaging the attention of the government after the restoration of peace was the establishments of regular governments in the southern states. The president issued various proclamations, in which he declared all southern ports open to commerce except four in Texas, and granted amnesty and pardon to all persons engaged in the rebellion, except fourteen specific classes of leaders, who were to make special applications for pardon. About the manner of restoring the state governments, however, a serious quarrel arose between the president and Congress. The constitution made no provision for the readmission of a state which had withdrawn from the union, and Mr. Johnson, as a former states-right Democrat, held that the southern states had never been out of the union; that the leaders were solely responsible; that as soon as the seceded states applied for readmission under such a form of government as the constitution required, the federal government was bound to admit them without imposing conditions upon subjects over which the constitution had not expressly given Congress jurisdiction. The Republican leaders held that the action of the seceded states had deprived them of their rights as members of the union; that in the relation they now occupied they were in the category of territories seeking admission to the union, in which case Congress could admit or reject them at will. The particular question which brought on the controversy was the civil status of the negro. The Republicans held that slavery had been the cause of the war; that it was now abolished; and that only by giving the freedman the right to vote could he be protected, and the results of the war secured. They also claimed that no state should be admitted until it had granted the right of suffrage to the negroes within its borders. Johnson held this to be a matter of internal regulation beyond the control of Congress.

Johnson as president.

Quarrel between the president and Congress.

304. When Johnson succeeded to the presidency in April, 1865, he had a clear field before him, for congress was not to meet until December. From May 9 to July 13 he appointed provisional governors for seven states, whose duties were to reorganize the governments. The state governments were organized, but passed such stringent laws in reference to the negroes that the Republicans declared it was a worse form of slavery than the old. When Congress met in December, 1865, it was very largely Republican and firmly determined to protect the negro against outrage and oppression. The first breach between the president and the party in power was the veto of the first Freedmen's Bureau bill in February, 1866, which was designed for the welfare of the colored people. President Johnson objected that it had been passed by a congress in which the southern states had no representatives. The bill failed to pass by a two-thirds vote. Congress then passed a civil right's bill in March, 1866, by which freedmen were made citizens of the United States, and United States officers were instructed to protect these rights in the courts. The president vetoed this bill also, the objection being that it interfered with the rights of the states. This bill was passed over the veto. To make the bill stronger, Congress adopted the Fourteenth Amendment to the constitution (June 16), and submitted it to the states, the necessary majority of which ratified it. Both houses then passed a joint resolution that no delegation from any of the states

Freedmen's Bureau bill.

Civil right's bill.

The Fourteenth amendment.

lately in rebellion should be received by either the senate or the house until both united in declaring said state a member of the union.

Admission of Nebraska

305. The president disapproved of these measures, and there was now open hostility between the executive and congress. In February, 1867, a bill was passed admitting Nebraska as a state, with the provision that it should never enact any law denying the right of suffrage to any person because of his color or race. This was vetoed, and passed over the veto. On March 2, 1867, the "bill to provide efficient governments for the insurrectionary states," which embodied the congressional plan of reconstruction, was passed over the president's veto. This bill divided the southern states into military districts, each under a brigadier general, who was to preserve order and exercise all the functions of government until the citizens had formed a state government, ratified the amendments, and been admitted to the union. On the same day the Tenure of Office bill was passed over the veto. This provided that civil officers should remain in office until the confirmation of their successors; that the members of the cabinet should be removed only with the consent of the senate; that, while Congress was not in session the president might *suspend* (not remove) any official; and in case the senate at the next session should not ratify the suspension, the suspended official should resume his office.

Tenure of Office bill.

Impeachment of the president.

306. On August 5, 1867, the president had requested Edwin M. Stanton to resign his office as secretary of war. Mr. Stanton refused, was suspended, and General Grant was appointed to his place. When congress met, the senate refused to agree to Stanton's removal. General Grant then resigned the office, and Stanton again took possession. The president removed him a second time, and appointed General Lorenzo Thomas to the place. Stanton held to his office, and sent notice to the speaker of the house; thereupon the house passed a resolution (February 24, 1868), for the impeachment of the president. The articles of impeachment accused him of disobeying the tenure of office law, and of various other offences. The trial took place according to the constitution, members of the house appearing as accusers, and the senate acting as judges, with Chief Justice Chase, of the supreme court, in the chair. After the trial began the president made a tour of the north and west, and delivered many violent and passionate speeches to the crowds which assembled to meet him, and denounced the congress then sitting as "no congress," because of its refusal to admit delegations from the southern states. On these speeches the house based additional articles of impeachment. The exciting trial lasted two months, and ended in May with a vote of thirty-five for conviction, and nineteen for acquittal. Thus there was not a two-thirds majority for conviction. The senate adjourned *sine die*, and a verdict of acquittal was entered.

Alaska.

307. The Russian possessions in North America, comprising a large and thinly populated territory at the northwest corner of the continent, were purchased of the Russian government by the United States in 1867 for the sum of $7,200,000. This territory is known as Alaska. Nevada, the thirty sixth state, was admitted during Mr. Lincoln's administration (1864); Nebraska, the thirty-seventh, was admitted in 1867. In 1868 General Grant was elected president, as the candidate of the Republican party, thus sealing the process of the reconstruction; Schuyler Colfax became vice-president. The Democratic candidates were Horatio Seymour, of New York, and Frank P. Blair, of Missouri. Virginia, Mississippi and Texas were the only states of the late confederacy which were excluded from this election; all the rest had been reconstructed and admitted by Congress in June, 1868. The Republican candidates carried twenty-six of the thirty-four voting states. In his inaugural address, General Grant declared that the government bonds ought to be paid in gold, advocated a speedy return to specie payments, and made many important recommendations in reference to public affairs. Regarding the good faith of the nation, he said: "To protect the national honor, every dollar of the government's indebtedness should be paid in gold, unless otherwise expressly stipulated in the contract." Congress acted promptly upon his recommendation, and on March 18, 1869, an act was passed, entitled "An Act to strengthen the public credit." Its language gave a pledge to the world that the debts of the country would be paid in coin, unless there were in the obligations express stipulations to the contrary.

Nevada and Nebraska.

Grant's election

Act to strengthen the public credit.

308. On February 26, 1869, the Fifteenth Amendment to the constitution was passed by Congress. Its adoption had been previously recommended by Grant. It guaranteed the right of suffrage without regard to race, color, or previous condition of servitude. It was ratified by the requisite three-fourths of the states, and declared in force March 30, 1870. In the meantime the foreign affairs of the country had been favorably established. Its promptness in disarming at the end of the war had put it under no disadvantage in dealing with other nations. The successful completion of the Atlantic cable (1866) gave a promptness and dispatch to diplomacy which was well suited to American methods. The most important measure of foreign policy during President Grant's administration was the treaty with Great Britain (May 8, 1871), known as the Treaty of Washington. Soon after entering upon his office, the president had begun negotiations, looking to a settlement of the claims made by the United States against Great Britain, arising from the depredations upon American commerce by confederate cruisers fitted out in British ports, the questions growing out of the Canadian fishery disputes, and the location of our northern boundary line at its junction with the Pacific ocean, which the jurisdiction of the island of San Juan in controversy.

The XVth amendment

Treaty of Washington.

309. A high joint commission had assembled at Washington, composed of American and English statesmen, which formulated the Treaty of Washington, and by its terms the claims against Great Britain, commonly known as the "Alabama claims," were referred to a court of arbitration, which held its session at Geneva, Switzerland. In September, 1872, it awarded the United States the sum of $15,500,000, which was subsequently paid by the British government. The fishery question was referred to arbitration by three commissioners, one to be chosen by the United States, one by Great Britain, and the third by the other two, provided they should make a choice within a stated time, otherwise the selection to be made by the Emperor of Austria. The two commissioners having failed to agree, the third was named by the Emperor of Austria. The award was unsatisfactory to the United States. The decision of the commission was severely criticised by the people and the press, and the dispute has been reopened since from time to time, to the detriment of both countries. The San Juan question was referred to the Emperor of Germany as arbitrator with sole power. His award fully sustained the claim of the United States.

The Alabama claims.

The fishery question.

San Juan.

310. President Grant's first administration had been vigorous and progressive, but a number of Republicans had become estranged, feeling that they were being ignored by the executive. These persons formed themselves into an organization under the name of Liberal Republicans. This opposition resulted in the nomination of Horace Greeley for president, and B. Gratz Brown for vice-president, by the Liberal party (1872). These nominations were afterwards adopted by the Democratic party. The republican convention renominated President Grant, with Henry Wilson as nominee for vice-president. When the election took place Grant carried thirty-one states with a popular vote of 3,597,070, the largest that had ever been given for any

Liberal Republicans.

Re-election of Grant.

president. He received 286 electoral votes, against 66 which would have been cast for Mr. Greeley had he lived. The noted journalist, however, died soon after the election. The canvass had been one of the most exciting and aggressive in the history of the country, and abounded in personal attacks on the candidates. During President Grant's first term of office the work of reconstruction according to the plan settled by Congress had been steadily carried out, and by July, 1870, the work had been accomplished, and all the states were again members of the union, although the votes of Arkansas and Louisiana were not received by Congress in 1872, because of fraud and illegality in the election.

Relations with Spain.

311. The relations between the United States and Spain were frequently disturbed by incidents growing out of an insurrection in Cuba, which had lasted for a number of years. Several American citizens had been arrested by the Spanish authorities, under the pretense that they had been furnishing aid to the insurgents, and American vessels plying in Cuban waters had been subjected to much inconvenience. Matters at length culminated in the seizure by Spain (October, 1873), without justification, of the American steamer *Virginius*. This outrage created intense excitement in the United States, and many statesmen were clamorous for war; but the president took more pacific measures, and, by acting with promptness and firmness, soon wrung from Spain ample apology and full separation. Political troubles were still rife in certain states of the south. In March, 1871, the disorders in the southern states, growing out of the conflicts between the whites and the negroes, had assumed such proportions that the president sent a special message to Congress requesting "such legislation as shall effectually secure life, liberty and property, and the enforcement of law in all parts of the United States." On April 20 Congress passed an act which authorized the president to suspend, under defined circumstances, the writ of habeas corpus in any district, and to use the army and navy in suppressing insurrections. He issued a proclamation (May 4), ordering all unlawful armed bands to disperse, and after expressing his reluctance to use the extraordinary power conferred upon him, said he would "not hesitate to use that power to its full extent, whenever and wherever it should be necessary to do so for the purpose of securing to all citizens the peaceful enjoyment of the rights guaranteed to them by the constitution and the laws of the United States." As this did not produce the desired effect, he issued a proclamation of warning (October 12), and on October 17 suspended the writ of habeas corpus in parts of North and South Carolina. He followed this by vigorous prosecutions, which resulted in sending a number of prominent offenders to prison, and the outrages soon ceased.

Case of the "Virginius."

Political troubles in the south.

Louisiana.

312. Soon after President Grant entered upon his second term of office, the disputes in Louisiana concerning the result of the election in 1872 became more bitter, and armed violence was threatened in that state. Early in 1873 the president called the attention of Congress to the inadequacy of the laws applying to such cases, saying that he had recognized the officers installed by the decision of the returning-board as representing the *de facto* government, and if he had exercised undue interference by such a course he urged Congress to an immediate decision in regard to the matter. Congress, however, took no action, and left with the president the sole responsibility of dealing with this delicate question. The next year the difficulty was renewed and a fierce contest arose between the Republicans under Kellogg, and the Democrats under McEnery, the respective candidates of the two parties for the governorship, which resulted in armed hostilities. Kellogg, the *de facto* governor, called upon the federal government for protection, which it immediately granted by sending troops thither, and the outbreak was for a time suppressed. But troubles again arose, and General Sheridan was sent to report upon the situation of affairs, and if necessary, to take command of the troops and adopt vigorous measures to preserve the peace. Sheridan became convinced that his duty was to sustain the government of Kellogg, and on the demand of the governor he ejected some of McEnery's adherents from the state capitol. As Congress still omitted to take any action in the case, the president continued his recognition of the government, of which Kellogg was the head, until the election of a new governor. After this there was no serious trouble. Difficulties of the same nature arose in Arkansas and Texas, which were almost as perplexing to the executive as those in Louisiana; but these attracted less attention from the people.

The Inflation bill.

313. In April, 1874, Congress passed a bill known as the "Inflation bill," which increased the paper currency of the country, and was contrary to the financial policy which the president had maintained and advocated in his state papers. Strenuous efforts were made by his warmest political supporters to convince him that the measure was financially wise and politically expedient. President Grant gave much thought and study to the question, and at length fully decided that the measure would in the end prove injurious to the true business interests of the country, and delay the resumption of specie payment. He, therefore, returned the bill to Congress with his veto (April 22). The arguments contained in his message were unanswerable, the bill was not passed over his veto, and his course was sustained by the whole country. The president now earnestly advocated the resumption of specie payment. In a letter addressed to Senator Jones, of Nevada, he gave a full statement of his views on the question. This letter was made public, and attracted much attention; and in January, 1875, the resumption act was passed, which to a large extent embodied the views that had been suggested by the president. There were doubts in the minds of many as to the ability of the government to carry it into effect; but it proved entirely successful, and the country was finally relieved from the stigma of circulating an irredeemable paper currency.

The resumption act.

Indian troubles.

314. Great trouble was caused soon after the close of the war by the depredations of the Indian tribes of the west and southwest. The Sioux and Cheyennes having begun hostilities, an expedition was sent out against them under the direction of General Hancock in 1867, and another, in 1868, beyond the Arkansas river, where General Custer gained an important victory. In an expedition against the Modocs of Oregon, in 1873, General Canby was treacherously murdered during a parley with the Indian chiefs. The Sioux had ceded to the United States a large tract of country in what was then Dakota territory, reserving to themselves the district known as the Black Hills. When it was rumored that gold had been found on their reservation, the whites began to push into this region, regardless of the rights of the Indians. The Sioux were a warlike tribe, and they retaliated by attacking the frontier settlements in Montana and Wyoming. United States troops were sent out against them, but met at first with a terrible disaster. In June, 1876, General Custer, with about two hundred and fifty soldiers, was surprised and the entire force massacred. The war lasted into the winter of 1877 when the Sioux, with their chiefs, Sitting Bull and Crazy Horse, went across the border into British territory.

Murder of Canby.

Black Hill

The Custe massacre.

315. During 1875, the president had reason to suspect that frauds were being practiced by government officials in certain states, in collecting the revenue derived from the manufacture of whiskey. He at once took active measures for their detection, and the vigorous pursuit and punishment of the offenders. He issued a stringent order for their prosecution, closing with the famous

Whiskey frauds.

words, "Let no guilty man escape." Many indictments soon followed; the ringleaders were sent to the penitentiary, and an honest collection of the revenue was secured. The year for nominating a president was at hand, and the excitement ran high. Friends of the convicted, political enemies and rivals for succession in his own party, resorted to the most desperate means to break the president's power and diminish his popularity. The grossest misrepresentations were practiced, first in trying to bring into question the honesty of his purpose in the prosecution of offenders, and afterward in endeavoring to rob him of the credit of his labors, which had resulted in the purifying of the revenue service. But these efforts signally failed. In 1876 the United States celebrated the one hundredth anniversary of the Declaration of Independence. There were great rejoicings throughout the country, and the various battles of the revolution, as well as the signing of the Declaration, were commemorated by appropriate exercises. The centennial year was chosen for holding a great international exhibition at Philadelphia, to which all the nations of the world were invited to contribute. It was opened in May and closed in November, having been visited by about ten millions of people.

he cen-nary of depen-nce

316. The changes at the south, and the dissatisfaction of many at the north with the rule of the Republican managers, were seen in the election of 1876. The Democrats nominated Samuel J. Tilden and Thomas A. Hendricks for president and vice-president; and the Republicans, Rutherford B. Hayes and William A. Wheeler. A national Greenback convention was also held, May 17, composed of men who desired national paper money instead of national bank notes, and who opposed resumption of specie payments. It nominated Peter Cooper and Samuel F. Cary. The contest was very close, and a dispute arose as to the counting of the votes of certain southern states, both sides claiming them. The controversy was finally settled by the appointment of an electoral commission of fifteen, eight of which decided in favor of Mr. Hayes. In this year, Colorado, the thirty-eighth state (and the last up to 1887) was admitted in time to take part in the election.

lection 1876.

317. The administration of President Hayes, although much attacked by the politicians of both parties, was on the whole, very satisfactory to the people at large. By withdrawing the federal troops from southern state houses, and restoring to the people of those states practical self-government, it prepared the way for that patriotism among those lately estranged from the union, that fraternal feeling between the two sections of the country, and the wonderful material advancement of the south which we now witness. It conducted with wisdom and firmness the preparation for the resumption of specie payments, as well as the funding of the public debt at lower rates of interest, and thus facilitated the development of the remarkable business prosperity which continued to its close. While in its endeavors to effect a thorough and permanent reform of the civil service, there were conspicuous lapses and inconsistencies, it accomplished important and lasting results. Not only without any appropriations of money, and without encouragement of any kind from Congress, but in the face of the decided hostility of a large majority of its members, the system of competitive examinations was employed in some of the executive departments at Washington, and in some of the great government offices in New York, thus proving its practicability and usefulness. The removal by President Hayes of some of the most powerful party managers from their offices, avowedly on the ground that the offices had been used as part of the political machinery, was an act of high courage, and during his administration there was far less meddling with party politics on the part of the government officials than at any period since Andrew Jackson's time.

he Hayes lmnis-ation.

318. The financial condition of the United States had been steadily improving since the war. A few months after the conclusion of peace the public debt had reached its highest amount, $2,800,000,000, and by the close of President Hayes' administration no less than one thousand million dollars of that amount had been paid off. The credit of the government rose, and the paper money, once worth only a third of its denomination in gold, increased in value. The operation of refunding the debt had been begun July 14, 1870. At that time Congress passed an act authorizing the issue of five, four and a half, and four per cent bonds to take the place of those at higher interest. $500,000,000 were issued in five per cent bonds, $185,000,000 in four and one half per cent, and $710,315,950 at four per cent, thus reducing the annual interest charge from $81,639,684 to $61,738,838. This first refunding operation was completed in the year 1879, at the time when specie payments were resumed. In 1881 about $200,000,000 of six per cent bonds fell due. Mr. Windom, secretary of the treasury, took the responsibility of allowing the holders of the bonds to exchange them for three and one half per cent bonds, redeemable at the pleasure of the government. Holders of other bonds to the amount of $300,000,000 also availed themselves of this privilege, thus saving $10,000,000 interest. In 1875 Congress passed a law providing that the paper "fractional currency" used for small change should be redeemed at once in silver, and that after the 1st of January, 1879, the "greenbacks" should be paid on demand in coin.

Financial condition.

Refunding the debt.

319. At the elections of 1880 the Republican candidates were General James A. Garfield for president, and General Chester A. Arthur for vice-president; while the Democrats nominated General Winfield S. Hancock and William E. English. The Republican ticket was successful, receiving the electoral votes (214 in number) of all the northern states except California —which was divided—Nevada and New Jersey. The Democratic electoral vote was 155 including 11 from Georgia, which, not having been cast on the day appointed by law, were objected to when the returns were opened. As they could not effect the result the question whether they should be counted or not was never decided. The new administration was inaugurated March 4, 1881, and the scramble for office which had marked each advent to the presidency since 1829, followed. There was bitter dissension in the party in New York over the distribution of offices. The New York senators, feeling aggrieved at certain appointments in their state, resigned, and then made efforts to be re-elected by their state legislature, in which they failed. In the midst of it all President Garfield was shot (July 2, 1881) by a crazy disappointed office seeker. The avowed object was to promote to the presidential chair Vice-President Arthur, who represented the Grant or "stalwart" wing of the party. The president was not instantly killed. For three months he lay helpless, while the nation watched anxiously every turn in his condition. The sympathy shown by all parts of the country did much to draw the nation together and to lessen the old distrust. Garfield died September 19, 1881, and was succeeded by Vice-President Arthur.

Election of 1880.

Garfield's assassination.

320. The prominent events of President Arthur's administration may be here summarized. Shortly after his accession to the presidency he participated in the dedication of the monument erected at Yorktown, Va., to commemorate the surrender of Lord Cornwallis at that place, Oct. 19, 1781. A convention was made with Mexico (July 29, 1882) for re-locating the boundary between that country and the United States from the Rio Grande to the Pacific, and on the same day an agreement was also effected permitting the armed forces of either country to cross the frontier in pursuit of hostile Indians. The death of President Garfield called

Arthur's administration

general attention to that reprehensible system under which each party, while in office, had paid its party expenses by the use of minor offices for its adherents. The president's power of appointment could not be controlled; but the Pendleton Act (1883) permitted the president to make appointments to designated classes of offices on the recommendation of a board of civil service commissioners. From the British government a full recognition of the rights and immunities of naturalized American citizens of Irish origin was obtained, and all such who were under arrest in England or Ireland as suspects were liberated. A bill passed by Congress prohibiting the immigration of Chinese laborers for a term of twenty years was vetoed (April 4, 1882), as being a violation of the treaty of 1880 with China, which permitted the limitation or suspension of immigration, but forbade its absolute prohibition. The veto was sustained, and a modified bill, suspending immigration for ten years, was passed, May 6, 1882, which received the executive approval. A law was passed (August 3, 1882) for returning convicts to Europe, and on February 26, 1885, importation of contract laborers was forbidden.

Chinese immigration bill.

Convict law.

321. The suspension of the coinage of standard silver dollars and the redemption of the trade dollars were repeatedly recommended; also, the repeal of the stamp taxes on matches, proprietary articles, playing cards, bank checks, drafts, and of the tax on surplus bank capital and deposits. These taxes were repealed by act of congress (March 3, 1883); and by executive order of June 25, 1883, the number of internal revenue collection districts was reduced from 126 to 83. The tax on tobacco was reduced by the same act of congress. On July 12, 1882, an act became law enabling the national banks, which were then completing their twenty year terms, to extend their corporate existence. The attention of Congress was frequently called to the decline of the American merchant marine, and legislation was recommended for its restoration, and the construction and maintenance of ocean steamships under the United States flag. In compliance with these recommendations, the following laws were enacted: June 26, 1884, an act to remove certain burdens from American shipping; July 5, 1884, an act creating a bureau of navigation, under charge of a commission, in the treasury department; and March 3, 1885, an amendment to the postal appropriation bill granting $800,000 for contracting with American steamship lines for the transportation of foreign mails.

Repeal of of stamp taxes.

National banks.

Merchant marine bill and bureau of navigation

322. The reduction of letter postage from three to two cents was recommended, and was effected by the act of March 3, 1883; the unit of weight was made (March 3, 1885) one ounce instead of a half ounce; the rate on transient newspapers and periodicals was reduced (June 9, 1884,) to one cent for four ounces, and the rate on similar matter, when sent by the publisher to actual subscribers, was reduced to one cent a pound (March 3, 1885). The fast mail and free delivery systems were largely extended. Special letter deliveries were established March 3, 1885. The star service at the west was increased at reduced cost; the foreign mail service improved; and various postal conventions were negotiated. A law for the adjudication of the French spoliation claims was passed (January 20, 1885), and preparations made for carrying it into effect. On March 3, 1885, a bill was passed retiring General Grant with the rank of general of the army, and with full pay.

Reduction of letter postage.

French spoliation claims.

Election of 1884.

323. In 1884 the Republicans nominated James G. Blaine and General John A. Logan, and the Democrats Cleveland and Hendricks. The greenback and anti-monopolist parties put forward the name of Benjamin F. Butler. The prohibitionists, also, had organized themselves into a party, and presented as their candidate Governor St. John. A small majority of the democratic candidates in the state of New York gave them its electoral votes, and decided the election in their favor. They were inaugurated March 4, 1885. The president announced in regard to official changes that, with the exceptions of heads of departments, foreign ministers, and other offices charged with the execution of the policy of the administration, no removals would take place except for cause. He therefore came into conflict with many influential members of his party, who advocated the speedy removal of Republican office-holders and the appointment of Democrats, in order to strengthen the party as a political organization. While that class of politicians objected to the slowness with which removals were made, and to the appointment of independents, and in a few instances Republicans, the Republicans and some of the civil service reformers complained of other appointments as not being in accord with the professions of the president. He declared "offensive partisanships" to be a ground for removal; and numerous Republican functionaries were displaced under that rule, while the term itself became a by-word. On March 13, 1885, the president issued a proclamation announcing the intention of the government to remove from the Oklahoma country, in Indian territory, the white intruders who sought to settle there, which was done shortly afterwards by a detachment of soldiers.

Cleveland's administration.

"Offensive partisanship."

Oklahoma country.

324. In his message at the opening of the XLIXth Congress, December 8, 1885, President Cleveland recommended the abolition of duties on works of art, the reduction of the tariff on necessaries of life, the suspension of compulsory silver coinage, more stringent laws for the suppression of polygamy in Utah, an act to prohibit the immigration of Mormons, and the extension of the civil service reform. In January, 1886, Congress passed the bill regulating the presidential succession in the event of a vacancy. Mr. Cleveland exercised the veto power beyond all precedent. Of 987 bills passed by both houses in the session ending August 5, 1886, 115 were vetoed. Of these 102 were private pension bills, and six were bills for the erection of public buildings. Of the general measures which failed to receive his signature, the most important was the Morrison resolution requiring the secretary of the treasury to apply to the redemption of bonds any surplus to the treasury exceeding $100,000,000. The river and harbor bill, containing appropriations, deemed by many useless and extravagant, and the bill taxing oleomargarine two cents a pound, which was considered an unjust discrimination against one class of producers for the benefit of another, were not vetoed. On signing the latter, the president sent a message to Congress, in which he gave as his reason that the stamps required by the act would mark the character of the substance and prevent it being fraudulently sold.

Presidential succession.

325. The presidential campaign of 1888 was noted for the number of candidates in the field, who were as follows: Republican, Benjamin Harrison and Levi P. Morton; Democratic, Grover Cleveland (renominated) and Allen G. Thurman; prohibition, Clinton B. Fisk and John A. Brooks; union labor, A. J. Streeter and Charles E. Cunningham; industrial reform, Albert E. Redstone and John Colvin; united labor, Robert H. Cowdry and W. H. T. Wakefield; woman suffragists, Belva A. Lockwood and Albert H. Love. The main issue between the two leading parties, Republican and Democratic, was on the tariff question; the former favoring a modified protected tariff, while the latter demanded a tariff chiefly for revenue. The principles of the other parties related to labor, national currency, prohibition and woman's suffrage. The Republican party was successful, and Harrison as president, with Morton as vice-president, was inaugurated March 4, 1889. The administration of Mr. Harrison, thus far, has been characterized by the passage of the McKinley tariff bill, which both increases and diminishes the duties on many necessary articles

Election of 1888.

Harrison's administration.

and adds to the duties on luxuries, and by the regulation of pension matters. The invalid pension bill has been passed, granting pensions to all disabled soldiers without reference to the time when the disability was contracted. On the beginning of June, 1890, the enumeration of the general census for the last decade was begun, under the control of Superintendent Porter, and the returns of the census enumerators give the population of the United States at 63,250,000, which is less than was anticipated. Many consider the returns as imperfectly made.

The census.

326. In the meanwhile the prosperity of the United States has known no cessation. During the civil war of 1861–1865, the emperor of France, Napoleon III., attempted to establish in Mexico a foreign government under Maximilian, an Austrian archduke, aided by a French army. The remonstrance of the United States and the resolution of the Mexicans compelled Napoleon to abandon the attempt. Maximilian was siezed by the Mexicans and executed (1867). A new invasion of Mexico from the United States was begun, but it was the peaceful invasion of commerce. Railways were pushed down along the great plateau which reaches from the United States into the heart of the country, making thus a closer connection between the two peoples. In 1869 the first of the great railroads, the Central Pacific, was finished, connecting the Atlantic and Pacific Oceans, and opening the country to settlement and travel. Since then other railroads have stretched their iron bands across the continent. Of the 200,000 miles of railroad in the world, there are, probably, about 135,000 miles in the United States. This country possesses, also, more than 150,000 miles of telegraph lines; and the American telephone lines are still longer in the aggregate. In 1866, a previous attempt in 1857 having failed, a telegraphic cable was laid upon the bed of the Atlantic between America and Europe. This cable was followed by others, so that now the citizen of the United States may know each day the principal events which occur in the civilized world. The stimulus given to new territory possessing the requisites for settlement by the introduction of a new railway has been wonderful beyond description. Most of the western railways have had to build up their own traffic. The railway has been mainly constructed under land grants from the government, and the sales of these lands have brought into existence the towns and even the states which support it.

The present nation.

Railways.

Telegraph and telephone lines.

Atlantic telegraph.

327. In the government reports of 1854 Nebraska was described as a desert country totally unsuited for agriculture, and in the maps of the time it was put down as a part of the Great American Desert. It is now one of the leading agricultural states of the union with a population of over a million. Since the admission of Colorado in 1876 six other states have been admitted to the union, namely, North and South Dakota, Washington, Montana, Wyoming and Idaho. There are yet five territories, including Alaska, not yet organized into states, and the District of Columbia. The mineral wealth of the country has become greatly developed. A few years after the discovery of gold in California the precious metal was found also at Pike's Peak, Colorado (1858). Since then it has been discovered in most of the Pacific states and territories. In 1858 silver was discovered in Nevada, and this metal has been found widely distributed in the country bordering on the Pacific coast. The extent of the vast coal fields of the country has been pretty clearly ascertained. In 1883 it was estimated at over 200,000 square miles. Petroleum was discovered in 1859 in northwestern Pennsylvania, numerous wells were sunk and vast quantities of the oil have been taken from the earth, but the reservoir seems to be unfailing. Manufacturing establishments of every variety have rapidly increased in every part of the country. The absolute free trade which exists between the states has resulted in a constant shifting of centers of production and an increasing development. Among the nations of the world, Great Britain, in 1870, stood first in wealth, France the second and the United States the third. In 1880 the United States had left France behind in the race and stood at least second. When all the census returns of 1890 shall be given they will doubtless show that this country ranks with the first. The United States, whose population has been developed within less than three centuries, does already more than one-third of the world's mining and one-fourth of its manufacturing. It embraces also one-fifth of its agriculture.

New states.

Mineral wealth.

Coal.

Petroleum.

Manufactures.

328. In this wonderful progress and development the south, since the close of the war, has borne her share. Being relieved of the incubus of slavery she has come up "through great tribulation" to assume her rightful place as a most important factor in advancing the prosperity of an undivided nation. Under the stimulus of free labor her growth has been extraordinary. New railroads have been built and new territory opened up. Southern railways occupy a leading position in the railway systems of the country. Southern manufactures began to effect northern markets. Cotton mills have been successfully established, which have the advantage of an immediate contiguity to the cotton-raising states. The great mineral fields, over which contending armies fought fierce battles during the late war, have been brought to light and are being rapidly developed. Pennsylvania iron-masters have a new rival to contend with in the iron production of the south. The former slave is now a free laborer, and the white man is no longer ashamed to work. White labor produced ten per cent of the cotton crop of 1860 and fifty-five per cent of that of 1886. Under slavery, cotton-seeds were waste material; in 1886 600,000 tons of them were crushed, yielding a new production in the form of cotton-seed oil valued at $12,000,000 per annum.

The south.

329. Among the political and economic questions demanding the attention of the government, no one of them is more important than the question of the reform of the civil service, but it is not avowedly made a party question. Twenty years ago both parties laughed at the idea of civil service reform, now each one makes a show at least of treating it with respect, and the control of the immediate political future, probably lies with the party which will treat it in the most serious and practical manner. It is a question that was not distinctly foreseen in the days of Hamilton and Jefferson, when the constitution was made and adopted, otherwise the founders of the constitution might have had something to say concerning it. The question as to the civil service arises from the fact that the president has the power of appointing a very large number of petty officials, chiefly postmasters and officers concerned with the collection of the government revenue. Such officials have properly nothing to do with politics; they are simply the agents or clerks or servants of the national government in conducting its business, and if this business is to be managed on the ordinary principles of prudence which prevail in the management of private business, such servants ought to be selected for personal merit and retained for life or during good behavior. In 1883 Congress passed the civil service act allowing the president to select a board of examiners and make appointments upon their recommendation. Candidates for office are subjected to an easy competitive examination. The system has worked well in other countries, and under Presidents Arthur and Cleveland it was applied successfully to a considerable part of the civil service. It has also been adopted in some of the states and principal cities of the union. It is objected to by the opponents of reform, on the ground that its examinations are not always intimately connected with the work of the office; but, even if

Civil service reform.

The civil service act of 1883.

Objection.

this were so, it removes the offices from the category of things known as "patronage," and this alone endows the system with great merit. Then again, it relieves the president of much needless work and wearisome importunity. The executive and heads of departments appoint (in many cases through subordinates) about 115,000 officials. It is therefore impossible for the principals to know much about the character or competency of those appointed. It becomes necessary to act by advice, and the advice of an examining board is sure to be much better than that of political schemers intent upon getting a salaried office for their needy friends. The examination system has made a fair beginning and will doubtless be gradually improved and made more stringent. Something has been also done toward stopping two old abuses attendant upon political canvasses, namely, that of forcing government clerks, under penalty of losing their places, to contribute part of their salaries for election purposes, and that of allowing them to neglect their work in order to take an active part in the canvass.

The Australian ballot system.

330. Another political reform promising excellent results is, the adoption by many states of some form of the Australian ballot-system, for the purpose of checking intimidation and bribery at elections. The ballots are printed by the state, and contain the names of all the candidates of all the parties. Against the name of each candidate the party to which he belongs is designated, and against each name there is a small vacant space to be filled with a cross. At the polling place the ballots are kept in an enclosure behind a railing and no ballot can be brought outside under penalty of fine or imprisonment. One ballot is nailed against the wall outside the railing, so that it may be read at pleasure. The space behind the railing is divided into separate booths quite screened from each other, each booth is provided with a pencil and a convenient shelf on which to write. The voter goes behind the railing, takes the ballot which is handed to him, carries it to one of the booths, and marks a cross against the names of the candidates for whom he votes. He then puts his ballot into the box, and his name is checked off on the register of voters of the precinct. This system is very simple; and it enables a vote to be given in absolute secrecy. It is favorable to independence in voting, and is unfavorable to bribery, because, unless the briber can follow his man to the polls and see how he votes, he cannot be sure that his bribe is effective. During the past few years, complaints of bribery and corruption have attracted especial attention in the United States, and it is highly creditable to the good sense of the people that preventive measures have been so promptly adopted by many of the states. With an independent and uncorrupted ballot, and the civil service taken "out of politics," all other reforms will become far more easily accomplished.

But a very few of the works treating of the History of the United States in its manifold phases can be here given, as they are so numerous. *The Histories of the United States*, by George Bancroft, David Ramsay, Richard Hildreth, Bryant Higginson, Lossing, Lester, Frost, Schouler, Von Holst, Ridpath, Hamilton, Hassard, Gray, Leeds; *American History*, edited by Edward L. Knapp; Gilman, *History of the American People*; H. H. Bancroft, *History of the Pacific Coast*; Willson, *American History*; Hazard, *Historical Collections*; Stephen H. Newman, *America*; Gilman, *History of the American People*; Winsor, *Narrative and Critical History*; Graham, *History of the United States*; Parkman's *Works*; Ludlow, *War of American Independence*; Gordon, *History of the Independence of the United States*; Edward D. Neill, *MacAllister, College Contributions to American History*; Gordon, *History of the American Revolution*, *Register of Debates in Congress*, *Congressional Globe*, *Annals of Congress*; Coles, *History of the Ordinance of 1787*; Adams, *New England Federalism, 1800-15*; Greene, *Historical View of the American Revolution*; The American Commonwealth Series: Lodge, *English Colonies in America*; Carrington, *Battles of the American Revolution*; Neill, *English Colonization of America*; Duyckinck, *National Portrait Gallery*; Holmes, *Annals of America*; Marshall, *History of the Colonies*; Palfrey, *History of New England*; Story, *Commentaries*; Story, *On the Constitution*; Frothingham, *Rise of the Republic*; Harpers' *Cyclopædia of American History*; Appleton's *Cyclopædia of American Biography*; John Robert Ireland, *The Republic*; Scott, *Constitutional Liberty in the Colonies*; Benton, *Thirty Years in the Senate*; Irving, *Life of Washington*; Kent, *Commentaries on American Law*; Johnston, *History of American Politics*; Johnston, *History of the United States*; Fiske, *American Political Ideas*; Fiske, *Civil Government in the United States*, *Johns Hopkin's University, Studies in History and Politics*; Howard, *Local Constitutional History of the United States*; A. 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McPherson, *Political Manuals*; Spofford, *American Almanac*; Fallows, *The American Manual*; Congressional Records; Reports of the Officers of the Various States; Histories of the Various States; Compendium of the Census from 1850-1890; Cooper, *Naval History*; Preble, *History of the Navy*; Porter, *Constitutional History*; McKnight, *Electoral System*; McCrary, *Election Laws*; Cooley, *Constitutional Limitations*, *Taxation and Constitutional Law*; Alden, *Science of Government*; Austin, *Constitutional Republicanism*; Bradford, *History of the Federal Government*, 1789-1839; Coles, *History of the Ordinance of 1787*; Dwight, *History of the Hartford Convention*; Draper, *Civil Policy of America*; Handlin, *American Politics*; Sneider, *The American State*; Spaulding, *Administrations of the United States*; Sumner, *Works*; Thompson, *Church and State in the U. S.*; Thompson, *Revolution Against Free Government*; Townsend, *Analysis of Civil Government*; Elliot's Debates; *Constitutional Convention*; Young, *American Statesmen*; Bancroft, *Formation of the Constitution of the U. S.*; Blaine, *Twenty Years in Congress*; Porter, *Constitutional History of the United States*; Preble, *History of the Flag of the United States*; Sumner, *Prophetic Voices Concerning America*; Wilson, *Rise and Fall of the Slave Power*; Woolsey and others, *First Century of the Republic*; Russell, *History of the War of 1812*; Ingersoll, *History of the War of 1812*; Abbott's *History of the Civil War*; Compte De Paris, *History of the Civil War in America*; Borcke, *Memoirs of the Confederate War*; Brownlow, *Rise and Progress of Secession*; Campaigns of the Civil War: Drew, *John Brown's Invasion*; Greeley, *American Conflict*; Harpers' *History of the Rebellion*; Pollard, *Lost Cause*; Pollard, *Lost Cause Regained*; Memoirs of Grant and Sherman—Life of Sheridan; Pollard, *General Lee and His Lieutenants*; Pollard, *Military Life of Jefferson Davis*; Stephens, *Constitutional View of Late War, with Supplement*; Blodgett, *Commercial Strength of the United States*; Bolles, *Financial History of the United States*; Sumner, *History of American Currency*; Taylor, *American Currency*; Knox, *Fifth Report of American Bankers' Association*; Law, *National Circulating Medium in United States*; Phillips, *History of American Paper Currency and Continental Money*; Wells, *Robinson Crusoe's Money*; Spaulding, *One Hundred Years of Banking*; Ely, *Labor Movement in America*; Gibbons, *Public Debt of the United States*; Mason, *The Tariff*; Young, *Tariff Legislation of the United States*; Hudson, *Railways and the Republic*; Hadley, *Railroad Transportation*; Poor, *Manual of U. S. Railroads*; Porcher, *Resources of the South*; Dresser, *United States Tariff*; Official Statistics of the United States, and the Several States.

PRESIDENTS AND VICE-PRESIDENTS OF THE UNITED STATES

Terms.	Presidents.	Vice-Presidents.
1789-93	1. George Washington, Va.	1. John Adams, Mass.
1793-97	George Washington.	John Adams.
1797-1801	2. John Adams, Mass.	2. Thomas Jefferson, Va.
1801-05	3. Thomas Jefferson, Va.	3. Aaron Burr, N. Y.
1805-09	Thomas Jefferson.	4. George Clinton, N. Y.
1809-13	4. James Madison, Va.	George Clinton (*d.* 1812).
1813-17	James Madison.	5. Elbridge Gerry, Mass, (*d.* 1814).
1817-21	5. James Monroe, Va.	6. Daniel D. Tompkins, N. Y.
1821-25	James Monroe.	Daniel D. Tompkins.
1825-29	6. John Quincy Adams, Mass.	7. John Caldwell Calhoun, S. C.
1829-33	7. Andrew Jackson, Tenn.	John C. Calhoun (res. 1832.
1833-37	Andrew Jackson.	8. Martin Van Buren, N. Y.
1837-41	8. Martin Van Buren, N. Y.	9. Richard Mentor Johnson, Ky.
1841-45	9. William Henry Harrison, O. (*d.* 1841).	10. John Tyler, Va.
	10. John Tyler.	
1845-49	11. James Knox Polk, Tenn.	11. George Mifflin Dallas, Pa.
1849-53	12. Zachary Taylor, La. (*d.* 1850.	12. Millard Fillmore, N. Y.
	13. Millard Fillmore.	
1853-57	14. Franklin Pierce, N. H.	13. William Rufus King, Ala. (*d.* 1853).
1857-61	15. James Buchanan, Pa.	14. John Cabell Breckinridge, Ky.
1861-65	16. Abraham Lincoln, Ill.	15. Hannibal Hamlin, Me.
1865-69	Abraham Lincoln (*d.* 1865).	16. Andrew Johnson, Tenn
	17. Andrew Johnson.	
1869-73	18. Ulysses Simpson Grant, Ill.	17. Schuyler Colfax, Ind.
1873-77	Ulysses S. Grant.	18. Henry Wilson, Mass. (*d.* 1875).
1877-81	19. Rutherford Birchard Hayes, O.	19. Wm. Almon Wheeler, N. Y.
1881-85	20. James Abram Garfield, O. (*d.* 1881).	20. Chester Allan Arthur, N. Y.
	21. Chester Allan Arthur.	
1885-89	22. Grover Cleveland, N. Y.	21. Thomas Andrews Hendricks, Ind. (*d.* 1885.)
1889-	23. Benjamin Harrison, Ind.	22. Levi Parsons Morton, N. Y.

S. F.

PART II.—PHYSICAL GEOGRAPHY AND STATISTICS.

Races and language.

North America is very unequally divided between races speaking English and those whose official language is Spanish. From the parallel of 30° south the continent narrows very rapidly, and nearly all the country to the north of this parallel is under the control of English speaking people. It is true that many emigrants from various portions of Europe, and some from Asia, as well as the descendants of Africans, are mingled with the descendants of the English, but this does not materially affect the truth of the statement, that north of 30° the English language is not only dominant, but almost universal. This vast region, embracing an area of more than seven millions of square miles, is pretty equally divided, so far as area is concerned, between colonial possessions of Great Britain and a country of which the nucleus was once colonial and English, but which for a little more than a hundred years has been independent of the mother country, and which has greatly increased in area since that change took place, by the absorption, as explained elsewhere, of land formerly to a certain extent controlled by, or in nominal possession of, people speaking French and Spanish. The Spanish-speaking inhabitants of North America are known as Mexicans and Central Americans, the colonial English as Canadians; and owing to the difficulty of making a convenient and euphonious adjective appellative out of the name United States, the citizens of "the States" are being more and more generally designated by the term "Americans."

Boundaries and area.

The British possessions in North America, although about equal in area to the United States, are much less densely populated than this country, and will in all probability ever remain so, since in regard to climate, soil, and mineral productions, the northern portion of the continent stands in a position greatly inferior to that of the more southern region. To the United States belongs that portion of North America which by its position in latitude is, in large part, capable of supporting a dense population, and where the climatic conditions are highly favorable to intellectual and physical development.

The area embraced under the designation of "the United States" (of North America) extends from the Atlantic to the Pacific Ocean. Its boundaries, other than these oceans, are in part natural and in part artificial. The Gulf of Mexico forms the southern boundary of the United States between the meridians of 83° and 97°. Between Mexico and the United States, the boundary is in part natural and in part arbitrary. The most essential feature of this boundary is the Rio Grande, from the mouth of which the division line between Mexico and the United States follows this river to the point where the parallel of 31° 47′ intersects it.

The boundary line between the United States and Canada follows the middle of the St. Lawrence River and the Great Lakes, from the point where the 45th parallel cuts that river to a point on Lake Superior where the Rainy Lake River enters that lake, thence up that river to a point on the west side of the Lake of the Woods, and thence along the 49th parallel to Puget Sound.

The triangular area between Lakes Ontario and Erie on one side and Lake Huron on the other extends far to the south of the remaining portion of Canada, and this southerly area constitutes the most valuable and thickly inhabited portion of the Dominion.

The United States, as thus limited, leaving out of consideration the remote territory of Alaska, comprises an area of 3,025,600 square miles. This includes 55,600 square miles of water surface, embracing the following items:—

Coast waters, bays, gulfs, sounds, etc.	17,200
Rivers and smaller streams	14,500
Lakes and ponds	23,900
Leaving the total land surface	2,970,000
Total	3,025,600

Under the head of "lakes and ponds," as given above, no portion of the Great Lakes is included. The area of Alaska is given in the Census Report of 1880 as being 531,409 square miles, which figures, however, can be only a rough approximation, and which differ greatly from those given in the Report of the Commissioner of the General Land Office for the year ending June 30, 1886. The total of the possessions of the United States is therefore, approximately, 3,557,009 square miles. The area of the British Possessions in North America, including Newfoundland, but not the Arctic Archipelago, is given by Behm and Wagner at 3,248,077, and by Mr. Selwyn, Government Geologist of Canada, at 3,530,630 square miles,—the latter estimate including Newfoundland, and also the islands in the Arctic Ocean and Hudson's Bay. The area of Mexico is given by Behm and Wagner as 751,177 square miles, and that of Central America 211,320 square miles. The total area of North America, including the Arctic Archipelago and Central America, may therefore be approximately stated as follows:—

British Possessions	3,530,630
United States	3,557,009
Mexico	751,177
Central America	211,320
Total	8,050,136

Geographical position.

The area of the United States lies between the 67th and 125th degrees of longitude, and the 25th and 47th degrees of latitude.

Coast.

The form and character of the coast lines of the United States may properly first claim our attention in a topographic sketch of the area under consideration. The facilities for good harbors are lacking on both coasts. The deficiency in this respect on the Pacific side is striking, there being only one important bay on this coast between San Diego and Puget Sound; namely, that of San Francisco. This, as compared with the mass of the land, is of insignificant size, but as furnishing a large, safe, and easily accessible harbor, is of the greatest importance. The indentation at San Diego is much smaller than that of San Francisco, but that also furnishes a commodious harbor. With these exceptions there are within the limits of the United States no satisfactory harbors on the Pacific coast except those of Puget Sound and Columbia River in the extreme north.

Ports and harbors.

The eastern coast of the United States is provided with several good harbors and some large bays. On the Maine coast there is the harbor of Portland, which may be taken as a type of a number of safe and commodious ports along the coast. In Massachusetts, Cape Cod incloses a large and safe bay, at the lower end of which is situated the harbor of Boston. In New York, the situation of the city by the same name makes that port the most important center of commerce in the United States.

The superiority and commodiousness of the harbor of New York depends in part on the breadth of the Hudson near its mouth—this river being in fact almost an arm of the sea—and also on the position of Long Island, the western end of which is so placed with reference to the coast of New Jersey and a closely contiguous small island (Staten Island) as to inclose a large land-locked area called the Upper Bay.

Long Island, off the coast of Connecticut, has a length of 120 miles. It is the only island of any importance on the Atlantic coast. There are a number of smaller ones, such as Block Island, Nantucket and Martha's Vineyard.

Bays.

South of New York are the Chesapeake and Delaware Bays. The latter receives the water of the Delaware River, and the Chesapeake that of the Potomac and the Susquehanna. The largest indentation on the coast of the United States is the Gulf of Mexico.

It is into this great reservoir that the superfluous waters of the larger portion of the United States are carried, chiefly by the Mississippi and Missouri, but also by direct drainage into the Gulf from the adjacent States. The peninsula of Florida, projecting from and extending five degrees south of the mainland, and forming the eastern boundary of the Gulf, is of more importance in its relations to the currents entering into the Gulf than it is as an addition to the inhabitable territory of the country.

A large portion of the northern boundary of the United States is of a peculiar kind. It is neither land, river, nor ocean, but fresh water; it being a line drawn through the central portion of four of the so called "Great Lakes"—Ontario, Erie, Huron and Superior. Lake Michigan, on the other hand, is wholly within the limits of the United States.

The Great Lakes.

The Great Lakes, which are five in number, constitute a most important feature in the topography of the country. They are remarkable for their size, and for the near approach to equality of altitude above the sea-level of the surface of the four largest ones. Navigation is entirely uninterrupted between Erie, Huron and Michigan, and these have the following elevations: Erie 573 feet; Huron, 582; Michigan, 582. Lake Superior is twenty feet higher than Lake Michigan, but this obstruction has been overcome by the building of a canal around the Falls of St. Mary (Sault Ste. Marie), with a single lock of sufficient dimensions to accommodate vessels and steamers of the largest size. Lake Ontario is 326 feet lower than Erie, and these two lakes are connected by a canal on the Canada side; while Erie is also thus connected, on the American side, with the Hudson River, and through this with the Atlantic.

As before remarked, the chief drainage of the United States is to the Gulf of Mexico, through the system of the Mississippi-Missouri and their tributaries, as will be seen by the following table, showing the extent of the various important divisions of the drainage area of the country, as given by the U. S. Census of 1880:

Atlantic and Gulf	2,178,210
Great Basin	208,150
Pacific Slope	619,240

Drainage areas.

The drainage area of the Mississippi-Missouri River is estimated at 1,240,039 square miles, or somewhat over one-third of the entire area of the country. The drainage into the Atlantic and Gulf, as stated above at 2,178,210 square miles, is divided as follows:—

New England coast	61,830
Middle Atlantic coast	83,020
South Atlantic coast	132,040
Great Lakes	175,340
Gulf of Mexico	1,725,980
Total	2,178,210

The drainage into the Gulf of Mexico is thus divided:—

Into the Gulf direct	485,941
Through the Mississippi River	1,240,039
	1,725,980

This indication of the overwhelming preponderance of the drainage of the territory of the United States into the Gulf of Mexico naturally opens the way to a recognition of the most important fact in the topography of the country — namely, the existence of such an orographic structure as compels the waters to concentrate themselves into one great system of tributaries coming in from the east and the west, and uniting in a main north-and-south channel. The cause of this state of things becomes evident when we notice the general relief of the country, and the positions of the various water-sheds. To acquire the best general idea of the relief of the surface of the United States, we may begin by supposing the land to be depressed or the level of the ocean raised, to an amount equal to one thousand feet. By doing this we should flood a great strip of country across the continent. Mexico would remain on the west a great mass of land, while to the north of the United States the land would rapidly diminish as higher latitudes were reached.

GENERAL TOPOGRAPHY.

In describing the physical features of a country, it is necessary to consider its general plan, the skeleton or framework of mountains, to which its plains, valleys, and river systems are subordinate, and on the direction and elevation of whose parts its climate is, in a very large degree, dependent.

The skeleton of the United States is represented by two great systems of mountain ranges, or combinations of ranges, one forming the eastern, the other the western side of the framework by which the central portion of our continent is embraced. These two systems are the Appalachian ranges and the Cordilleras of North America. These systems are of very different magnitude and extent. Between them stretches a great interior valley, occupied by the Mississippi and the great lakes.

Mountain regions.

The central portion of the United States is nearly a level area, embracing a tract of country about 1250 miles east and west, and about 1200 miles north and south. It slopes gently downward to the center from the east and west, and towards the Gulf of Mexico, from its northern limits. The mountain regions, both on the east and west coasts, are not embraced under one continuous range, but are complicated in their orographic structure.

The eastern and western elevated regions being made up of a great number of topographically more or less detached portions, it was not until a comparatively recent period that these regions received such general distinctive appellations as would evidently be required in any discussion or description of the country as a whole. At the present time, by general consent of geographers and geologists, the eastern elevated side of the continent is called the Appalachian Region; the western the Coadilleran, while the comparatively level country between these ranges is known as the Mississippi Valley.

The Great Basin of the Mississippi is bisected through its center by a supreme artery, which, above St. Louis, has received the name of the *Missouri*, and below the *Mississippi* River.

This is 5,000 miles in length, and its surface is a continuous inclined plane, descending seven inches in the mile. Into this central artery, as into a common *trough* descend innumerable rivers coming from the great mountain chains of the continent.

All of the immense area thus drained forms a single *basin*, of which the circumferent mountains form the rim. It may be also called an *amphitheatre*, embracing 1,500,000 square miles of surface. This has been, during the antediluvian ages, the bed of a great ocean, such as is now the Gulf of Mexico, or the Mediterranean, above the surface of which the mountains protruded themselves as islands. Gradually filled up by the filtration of the waters during countless ages, it has reached its present altitude above the other basins, over which the oceans now still roll, and into which the waters have retired.

Mississippi basin.

The Basin of the Mississippi is, then, a pavement of calcareous rock, many thousand feet in depth, formed by the sediment of the superincumbent water, deposited stratum upon stratum, compressed by its weight and crystallized into rock by its chemical fermentation and pressure. It is in exact imitation of this sublime process of the natural world that every housewife compresses the milk of her dairy into solid cheese and butter. It is, therefore, a homogeneous, undulating plain of the *secondary* or sedimentary formation, surmounted by a covering of soil from which springs the vegetation, as hair from the external skin of an animal. Through this coating of soil, and into the soft surface strata of rock, the descending fresh waters burrow their channels, converging everywhere, from the circumferent rim to the lowest level, and pass out to the sea.

The most noticeable facts in regard to this vast area are its slight elevation above sea-level and the general plain-like character of its surface. These conditions are well illustrated by the statement that at Cairo, the junction of the Ohio and the Mississippi, we are 1,100 miles from the Gulf, and yet only about 300 feet above the sea-level. At Pittsburgh, the head of the Ohio river proper, we have attained an elevation of only 699 feet. Going in the opposite direction, or following up the tributaries of the Mississippi and of the Missouri, which come in from the west, we have a similar condition of things. One may travel up the Platte or the Kansas for hundreds of miles, rising so gradually and so imperceptibly that the country seems all the time a level plain. From Council Bluffs to the source of Lodge Pole creek, along the line of the Union Pacific railroad, the ascent averages only 5 feet to the mile. From St. Paul, which is only 700 feet above the sea, we travel for 670 miles westerly before the mouth of the Yellowstone is reached, and here we have attained an altitude of only 2,010 feet, with an average rise of only 2 feet to the mile.

Area of Great Lakes.

The great lakes, those vast expansions of the upper waters of the St. Lawrence, are among the grandest of the geographical features of the North American continent. They are remarkable for their immense area, and for their uniformity of elevation above sea-level, and the consequent facilities which they afford for commercial intercourse.

Their combined area is a little more than 90,000 square miles, Lake Superior having over 30,000, and Lakes Michigan and Huron each over 20,000 square miles of surface. Erie, Huron, and Michigan are nearly on the same level, the extreme difference between the first and the last-named being only about 16 feet, while Superior is only 20 feet higher than Michigan, or 36 above Erie. The divide between the great lakes and the waters flowing into the Mississippi and its tributaries is also everywhere low, and at the lower end of Lake Michigan it is so trifling that only a small amount of excavation has been required to cause waters which formerly flowed into that lake to run toward the Gulf of Mexico. Lake Ontario is, indeed, 323 feet lower than Lake Erie, about half the descent from one to the other being made in one single plunge of the vast body of water, forming a cataract which has, in all probability, no rival in the world.

The level and fertile region of the Mississippi valley is prolonged toward the far southwest, around the Gulf of Mexico and far into the interior of Texas, where it finally passes into the elevated, barren plateau of the Llano Estacado.

Timber.

All that portion of the Mississippi basin lying between the Mississippi River and the Atlantic, is densely timbered, excepting only a portion of Indiana, Illinois, and Wisconsin; so also are the States of Louisiana, Arkansas, and South Missouri. An irregular line from the head of Lake Erie, running toward the south and west into Texas, defines the cessation of the timber. Between this line and the sea exists a continuous forest region, perpetually moistened by showers from the ocean. Beyond this line, and deeper into the continent, the upland ceases to nourish timber, which is replaced by luxuriant annual grasses, though narrow lines of forest continue upon the saturated bottoms of the rivers and in the islands. This is the Prairie region of luxuriant annual grasses and soft arable soil, over which the fires annually sweep after the decay of vegetation.

The termination of this belt is marked by an irregular line parallel to the first, where the rain ceases, and the timber entirely disappears. It is about 450 miles in width, and within it artificial irrigation is not practiced nor necessary, it being everywhere soft, arable and fertile.

To this succeeds the immense *rainless* region onward to the mountains, exclusively pastoral, of a compact soil, coated with the dwarf buffalo grass, without trees, and the abode of the aboriginal cattle. That no desert does or can exist within this basin, is manifest from the abundance and magnitude of the rivers; the uniform calcareous formation; the absence of a tropical sun; its longitudinal position across the temperate zone; and the greatness and altitude of the mountains on its western rim.

River system.

The river system of the Mississippi Basin resembles a fan of palm-leaf. The stem in the State of Louisiana rests in the Gulf; above, the affluent rivers converge to it from all parts of the compass. From the east come in the Homochitto, the Yazoo, the Ohio, the Illinois, and the Upper Mississippi. From the *west*, the Red River, the Washita, the Arkansas, the White, St. Francis and Osage Rivers, the Kansas, the Triple Platte, the L'Eau qui Cours, and the Yellowstone, all navigable rivers of great length and importance. These rivers present a continuous navigable channel of 22,500 miles, having 45,000 miles of shore—an amount of navigation and coast equal to the Atlantic Ocean. The area of the Mississippi Basin classifies itself into one-and-a-half-fifths of the compactly growing forest, the same of prairie, and two-fifths of great plains. Through all of these the river system is ramified as minutely complex as are the veins and arteries of the human system.

Plains.

Beyond this great main river stretch out the vast prairies of the west. These plains are not *deserts;* they are calcareous, and form the *Pastoral Garden* of the world. Their position and area may be easily understood. The meridian line which terminates the States of Louisiana, Arkansas, Missouri and Iowa on the west, forms their *eastern* limit, and the Rocky Mountain crest their *western* limit. Between these two limits they occupy a longitudinal parallelogram of less than 1,000 miles in width, extending from the Texan to the Arctic coasts. There is no timber upon them, and single trees are scarce. They have a gentle slope from the *west* to the *east*, and abound in rivers. They are clad thick with nutritious grasses, and swarm with animal life. The soil is not silicious or sandy, but is a fine *calcareous* mould. They run smoothly out to the navigable rivers, the Missouri, Mississippi, and St. Lawrence, and to the Texan coast. The mountain masses toward the *Pacific* form no serious barrier between them and that ocean. No portion of their whole sweep of surface is more than 1,000 miles from the most facile navigation. The prospect is everywhere gently undulating and graceful, being bounded, as on the ocean, by the horizon. Storms are rare, except during the melting of the snows upon the crest of the Rocky Mountains.

Climate.

The climate is comparatively *rainless;* the rivers serve, like the Nile, to irrigate rather than drain the neighboring surface, and have few affluents. They all run from *west* to *east*, having beds shallow and broad, and the basins through which they flow are flat, long and narrow. The area of the Great Plains is equivalent to the surface of the twenty-four States between the Mississippi and the Atlantic Sea. They are one homogeneous formation, smooth, uniform, and continuous, without a single abrupt mountain, timbered space, desert, or lake. From their ample dimensions and position they define themselves to be the *pasture-fields of the world.*

The Pastoral Region is *longitudinal*. The bulk of it is under the Temperate Zone, out of which it runs into the Arctic Zone on the north, and into the Tropical Zone on the south. The parallel Atlantic *arable* and *maritime* region flanks it on the east; that of the Pacific on the west.

While, as the whole, so nearly a plain, this vast area, comprising over a million and a half square miles, has considerable diversity of surface, it being not altogether destitute of mountains, some of which rise to a considerable altitude. To describe, even with a moderate amount of detail, the basin of the largest river system but one in the world would require many volumes. All that can be done is to indicate the salient features of its geology, as supplementary to that which has been said in regard to the structure of the great mountain systems by which this geologically comparatively undisturbed region is framed in.

Tertiary and Cretaceous rocks.

The Tertiary and Cretaceous rocks, extending along the Gulf and up the Mississippi Valley as far as the Ohio River, underlie about one-half of Alabama and Arkansas, the entire State of Mississippi, Louisiana, parts of Tennessee, Kentucky, a small corner of Missouri, and nearly all of Texas. Thence this geological formation follows the general trend of the Rocky Mountains, on their eastern side and underlies the western half of Kansas, nearly all of Nebraska, North and South Dakota, a portion of Iowa, and the western part of Minnesota.

Geological formation.

Triassic rocks stretch over a large area of Texas; they also extend into the Indian Territory and the southern part of Kansas. All but a small portion of the Northern Central group of States and portions of the Southern Central group of States, are of the Paleozoic rock formation, covered by post-Tertiary and recent detrital formations. In southeastern Missouri, the Azoic area is important from an economical standpoint. Iron ores of immense value occur in Pilot Knob, Iron Mountain and other localities. Iron is also found in the Azoic formations about Lake Superior, in the States of Wisconsin and northwestern Minnesota. North of this iron region is the copper-bearing rock of the lower Silurian age. Over New York, northern Pennsylvania, and the country bordering on the Great Lakes is found a large amount of "drift." How this so-called "drift" was distributed over this area is a question which has long been a subject of discussion among geologists. By far the larger number of those who have investigated the subject ascribe the origin of this coarse detrital material to glacial causes. It is believed that at one time the northern part of the continent was covered with ice, and that which we see on the present surface of the region that was thus covered, is the result of the action of these glaciers, or of the floods which were produced when they melted.

THE CORDILLERAN REGION.

The Cordilleras are a part of the great system or chain of mountains which borders the Pacific coast of both divisions of the American continent, South and North America, and forms its dominating and most imposing feature.

From Mexico the system of the Cordilleras enters our territory, widening and gaining in complexity. Just above the southern border of Arizona, along the parallel of 32°, occurs the greatest depression of the Cordilleras existing anywhere north of southern Mexico; and here the continent may be traversed without rising to an elevation of over 1,000 feet. The country along this line is a table-land, with many short and broken ranges of no great altitude built upon it, but deeply excavated by numerous canons, as the narrow valleys of the streams in the Cordilleras are universally called, of which the canon of the Colorado may be taken as the type.

The Cordilleras.

On this plateau, in latitude 35°, is a group of extinct volcanoes, similar to the range which traverses Mexico. These grand volcanic cones, of which San Francisco mountain is the loftiest and the best known, rise to nearly double the altitude of the plateau on which they stand. The greatest width of the Cordilleras is along the line passing from the vicinity of San Francisco, by Great Salt Lake, to Fort Laramie, or between latitudes 38° and 42°. Here the mass of mountains and plateaus attains a breadth of fully a thousand miles; and if the Black Hills, an outlier of the Rocky Mountains, in latitude 44°, are included—as they may properly be—the total breadth of the *complexus* of ranges will be, in its maximum, over 1,100 miles. The whole area embraced within the mountainous belt which we call the Cordilleras is but very little, if any, short of a million of square miles, or one-third the area of the country. Hence it may, with propriety, be called the greatest physical feature of our territory.

To roughly indicate the shape of the mass of the Cordilleras we may consider it as having a lozenge-shaped figure, bounded by two parallel north and south sides and two northwest and southeast sides. The length of each side is approximately 600 miles. The western edge of the figure corresponds in trend to the line of the Pacific coast, which, as a glance at the map will show, is northwest and southeast as far as Cape Mendocino, and from there to Vancouver Island north and south nearly. The north and south trending portion of the Pacific edge of the Cordilleras is known as the Cascade range; the northwest and southeast range as the Sierra Nevada. Here, bordering on the Cascade and Sierra Nevada ranges, but still nearer the ocean, are the Coast ranges, parallel with the loftier masses on the east, and inosculating with them, at various points, in such a manner that a distinct separation between coast and interior ranges seems hardly possible, either on geographical or on geological grounds.

The Rocky Mountains proper form the eastern rim of the Cordilleras. Throughout New Mexico, Colorado, and southern Wyoming their face ranges north and south. The northern part of this system, lying in northern Wyoming and Montana, presents to the plains a northwest and southeast face, similar to that of the Sierra Nevada.

The lozenge-shaped figure thus indicated, framed in, as it were, by the Cascade range and Sierra Nevada on the west and the Rocky Mountains on the east, incloses a high plateau, which, through its center east and west, has an elevation of from 4,000 to 10,000 feet above sea-level, falling off toward both the north and the south from its central line.

Let us consider it, in its great general features. It may be divided into—

1st. The section of the Rocky Mountains,
2d. That of the plateaus,
3d. That of the Great Basin, and
4th. That of the Pacific.

The country lying east of the first section is a great plain, extending to an undefinable eastern limit, which may be set, however, roughly at the 100th meridian. This plain is not strictly level, but undulating, like the swell of the sea. Most of the stream valleys are shallow depressions, and the divides between them are but slightly marked. These plains rise slowly westward, with an even gradient, to a height of 4,000 to 6,000 feet at the eastern base of the Rocky Mountains, being the highest in Colorado, decreasing thence northward and southward. They are covered with grasses almost throughout, and form a grazing-ground of almost incalculable capacity.

With the exception of the Missouri and the Yellowstone, none of the streams are of any importance to navigation, and they are of use only for irrigation. The capacity of this region for supporting life is largely dependent upon its rainfall, which will be discussed further on.

Rocky Mountains.

The Rocky Mountains form the eastern member of the Cordilleran system,—a member made up of many subordinate ranges, each range or sub-group of ranges having a distinctive name, recognized by those living near, while the name "Rocky Mountains" is in general use as the proper appellation when a number of these sub-groups of ranges are intended to be included under one common name.

From the south border of the United States to about latitude 43° their general course is nearly north and south, and from this point northward to the British line it is nearly northwest, thus forming the two eastern sides of the lozenge above spoken of. They consist of a number of ranges, nearly all of which trend parallel to one another—a few degrees east of south and west of north, or roughly parallel to the northeastern side of this region.

In the southern portion the ranges run out one after another into the plains, forming an *echelon* arrangement, thus giving to the system a nearly north and south face.

In Colorado the underlying plateau attains a greater elevation than in any other part of the Cordilleran system, reaching an extreme height in the South Park of 10,000 feet. Here, too, the ranges reach a greater altitude than in any other part of the Rocky mountain system. Numberless peaks rise from 14,000 to 14,500 feet above sea-level. There are few passes in the ranges at a height much below timber-line, which is from 11,000 to 12,000 feet. Northward and southward the plateau decreases gradually in height, carrying downward the ranges which stand upon it. Southward through New Mexico the ranges not only decrease in height, but become broken and scattering, while the extent of level plateau country becomes much greater. Toward the north, in southern Wyoming, all the ranges stop abruptly, leaving to represent the Rocky mountain system only a line of plateaus of an elevation of 6,000 to 7,000 feet stretching from Bridger pass, in the southern part of the territory, northwestward to the South pass, at the south end of the Wind River chain. In this latitude a number of ranges rise abruptly from the plateau, beginning with the Big Horn on the east, then the Wind River range, some of whose peaks are more than 13,000 feet in altitude, and the multitudinous ranges which border the headwaters of the Snake river. From this point, as the system continues onward into Idaho and Montana, the underlying plateau and the ranges also greatly decrease in height, but not in complexity. In the northwestern part of Montana and northern Idaho, indeed, the whole country is a mass of mountain ranges, whose elevation is from 8,000 to 9,000 feet, separated in most cases, by very narrow valleys, the whole area being densely covered with forests.

THE PLATEAU PROVINCE.

The region of which the principal or more striking, topographical and geological features are next to be indicated, is that lying south of the Great Basin, and which is drained by the Colorado and its tributaries. It is included chiefly within the boundaries of the Territories of Utah and Arizona; but, to a certain extent, similar characteristic features are found in the adjacent portion of Colorado, New Mexico, and Nevada.

Provinces.

For convenience of geological discussion, that belt of country which lies between the meridian of Denver, Colorado, and the Pacific, and between the 34th and 43d parallels, is divided into provinces, each of which possesses topographical features which distinguish it from the others. The easternmost is named the Park Province. It is situated in the central and western parts of Colorado, and extends north of that State into Wyoming, and south of it into New Mexico. It is pre-eminently a mountain region, having several long ranges of the second order of magnitude. The structure and forms of these mountains are not exactly similar to those of any other region now well known, but possess some resemblance to the Alps, though not a very close one.

Platforms and terraces.

To the westward of these ranges in Colorado, there are, near the western boundary of that State, regions having a very different topography. The mountains disappear almost wholly, and in their stead there are platforms and terraces nearly or quite horizontal on their summits or floors, and abruptly terminated by long lines or cliffs. They lie at greatly varying altitudes, some as high as 11,000 feet above the sea, others no higher than 5,000, and with still others occupying intermediate levels. Seldom does the surface of the land rise into conical peaks, or into long, narrow, crested ridges; but the profiles are long, horizontal lines, suddenly dropping down many hundred or even two thousand feet, upon another flat plain below. This region has been very appropriately named, by Professor Powell, the Plateau Province. It occupies a narrow strip in the extreme western part of Colorado, a similar

strip of western New Mexico, a large part of southern Wyoming, and rather more than half of Utah and Arizona.

Drainage basin of the Colorado.

This region may be roughly defined as comprising the drainage basin of the Colorado river and its tributaries. The upper portions of its tributaries flow, however, in the Rocky Mountains and the Wahsatch range, and enter the plateau region lower in their courses. This region lies west of the southern section of the Rocky Mountains and east of the Great Basin, and constitutes a great depression or valley in the Cordilleran region of a roughly triangular shape, its apex being in western Wyoming, near the head of the Green river, one of the forks of the Colorado. It is a region of table lands and canons; of table lands horizontal or nearly so, stretching for many miles with scarcely an undulation in the uniform surface, but suddenly ending abruptly in a line of cliffs, perhaps thousands of feet in height, and extending in an unbroken line for hundreds of miles. In this region every stream is in a gorge, cut hundreds, or even thousands of feet below the surface by the action of water on the soft, stratified sandstones and limestones. Most of this region is uninhabited and uninhabitable, not only by reason of the climate, which forbids agricultural pursuits, but from its almost hopeless impassableness.

Separating this region from the Great Basin is the Wahsatch range, which may be considered as a spur from the Rocky Mountains. It is a range of considerable breadth and altitude, extending from northern Utah nearly to the middle latitude of the State, and descending to the general level of the country on the south and east by a series of plateaus, forming a veritable giant's stairway. The elevation of this range in its highest portion is from 10,000 to 11,000 feet, one or two peaks only reaching an altitude of 12,000 feet. Joining this range in the northern part of Utah is that of the Uinta, which differs from nearly all the ranges of the Cordilleran region by having an east and west trend. It forms the southern limit of the Green River basin, the region upon which the fugitive name "*Great American Desert*" has been latest bestowed, and where it is probable it has at last found a final resting-place.

This range far exceeds the Wahsatch in elevation, a number of its peaks extending skyward nearly 14,000 feet, and its broad, plateau-like summit being for a considerable extent at an elevation of 12,000 feet.

Canons.

The Grand Canon District is a part of the Plateau Province. As already indicated, it lies between the Park and Basin Provinces, and its topography differs in the extreme from those divisions found on either side of it. It is the land of tables and terraces, of buttes and mesas, of cliffs and canons. Standing upon any elevated spot where the radius of vision reaches out 50 or 100 miles, the observer beholds a strange spectacle. The most conspicuous objects are the lofty and brilliantly colored cliffs. They stretch their tortuous courses across the land in all directions, yet not without system: here throwing out a great promontory, there receding in a deep bay, and continuing on and on until they sink below the horizon or swing behind some loftier mass or fade out in the distant haze. Each cliff marks the boundary of a geographical terrace, and marks also the termination of some geological series of strata, the edges of which are exposed like courses of masonry in the scarp-walls of the palisades. Very wonderful at times is the sculpture of these majestic walls. Each geological formation exhibits in its cliffs a distinct style of architecture which is not reproduced among the cliffs of other formations, and these several styles differ as much as those which are cultivated by different races of men. The character which appeals most strongly to the eye is the coloring. The gentle tints of an eastern landscape, the pale blue of distant mountains, the green of vernal or summer vegetation, the subdued colors of hill and meadow, are wholly wanting here, and in their place is the brilliant red, yellow and white, which are intensified rather than alleviated by alternating belts of gray. Like the architecture, the colors are characteristic of the geological formations, each series having its own group and range of colors. They culminate in intensity in the Permian and Lower Trias, where dark, brownish reds alternate with bands of chocolate, purple, and lavender, so deep, rich, and resplendent, that a painter would need to be bold to venture to portray them as they are.

Cliffs.

Colorings.

Gorges and ravines.

The Plateau country is also the land of canons, in the strictest meaning of that term. Gorges, ravines, *canadas* are found, and are more or less impressive in every high region; and in the vernacular of the west, all such features are termed canons indiscriminately. But these long, narrow, profound trenches in the rocks, with inaccessible walls, are seldom found outside the plateaus. There they are innumerable, and are the almost universal form of drainage channels. Nearly everywhere the drainage channels are cut from 500 to 3,000 feet below the general platform of the immediate country. They are abundantly ramified, and every branch is a canon. All these drainage channels lead down to one great trunk channel cleft through the heart of the Plateau Province for eight hundred miles—*the chasm of the Colorado*, and the canon of its principal fork, the Green River.

Drainage Channels.

Vegetation.

The region is for the most part a desert of the barrenest kind. At levels below 7,000 feet the heat is intense, and the air is dry in the extreme. The vegetation is very scanty, and even the ubiquitous sage is sparse and stunted. Here and there the cedar is seen, the hardiest of arborescent plants, but it is dwarfed and sickly, and seeks the shadiest nooks. At higher levels the vegetation becomes more abundant and varied. Above 8,000 feet the plateaus are forest clad, and the ground is carpeted with rank grass and an exuberant growth of beautiful summer flowers. The summers there are cool and moist: the winters severe and attended with heavy snow-fall. The Plateau Province is naturally divided into two portions, a northern and a southern. The dividing barrier is the Uinta range. This fine mountain platform is, in one respect, an anomaly among the western ranges. It is the only important one which trends east and west. Starting from the eastern flank of the Wasatch, the Uintas project eastward more than 150 miles, and nearly join perpendicularly the Park ranges of Colorado. Of the two portions into which the Plateau Province is thus divided, the southern is much the larger. Both have in common the plateau features; their topographies, climates, and physical features in general, are of similar types, and their geological features and history appear to be closely related. But each has also its peculiarities. The northern portion is an interesting and already celebrated field for the study of the cretaceous strata, and the Tertiary lacustrine beds. The southern part of the Plateau Province may be regarded as a vast basin, everywhere bounded by highlands, except at the southwest, where it opens wide and passes suddenly into a region having all the characteristics of the Great Basin of Nevada. The northern half of its eastern rim consists of the Park ranges of Colorado. Its northern rim lies upon the slopes of the Uintas. At the point where the Uintas join the Wahsatch, the boundary turns sharply to the south, and for 200 miles the High Plateaus of Utah constitute the elevated western margin of the Province. A crude conception of this region may be gained by imagining three lines, each 200 miles long, placed in the positions of three sides of a square: the fourth side being for the moment neglected. Upon the eastern side, conceive the Park Ranges of Colorado; upon the northern, the Uintas; and upon the western side, the southern portion of the Wahsatch and the High Plateaus of Utah; and all these highlands having altitudes ranging from 9,000 to 12,000 feet above sea-level, while the included area varies from 5,000 to 7,000 feet in height. The space thus partially bounded may represent the northern part of the southern Plateau Province. Along the line required for the fourth and south side of the complete square there is no boundary. The topography continues on beyond it to the southward, and also widens out both west and east and overspreads an additional area more than twice as great as that already defined. From the eastern coast of the High Plateaus may be obtained an instructive overlook of the northern portion of the southern Plateau country.

Uinta Mountains.

Utah plateaus.

Throughout the great carboniferous age the entire area of the Plateau Province was submerged beneath the ocean. Deposition of strata went on continuously, leaving at the close of this age a subaqueous surface, which was exceedingly flat, and, except around the borders of the Province, quite free from any appreciable inequalities. The thickness of the carboniferous system is from 4,500 feet to 5,000 feet in the interior of the Province, but, around its borders, and in the Uinta mountains, it is sometimes found in far greater volume. After the Carboniferous came the Permian age, in which were laid down from 800 to 1,500 feet of sandy shales. The same state of affairs continued through the Trias, during which period sandstone beds were deposited. Directly upon the Trias rests the Jurassic,—a wonderful bed of sandstone 800 to 1,200 feet thick, and very white and sugary. Next comes the Cretaceous system,—a mass of yellow sandstones with clayey and marly shales, aggregating from 4,000 to 5,000 feet thick. At the close of the Cretaceous period there are evidences that extensive disturbances took place, resulting at some places in the dislocation and flexing of the strata.

Carboniferous age.

Sandstone.

The last period of deposition was marked by the accumulation of the Eocene beds. Around the southern flanks of the Uintas their aggregate thickness exceeds 5,000 feet, but southward the upper members disappear, and 80 miles north of the Grand Canon only about 1,000 to 1,200 feet make their appearance. In the course of geological history, this area, which had been a region of deposition and subsidence, became one of elevation and denudation. Since that change took place, the havoc wrought by erosion has been stupendous, the thickness of strata removed exceeding 10,000 feet in some considerable areas, and averaging probably 5,500 to 6,000 feet over the entire Province.

Geological history.

THE GREAT BASIN.

West of the Plateau Province is the Great Basin, so named by Fremont, because it has no drainage to the ocean.

The first general idea of the drainage and principal topographical features of the Great Basin is due to Bonneville, who fitted out a party which started from Green River with the intention of making the entire circuit of Great Salt Lake. This, as Irving states, was a favorite idea of Bonneville's; and in preparing for this expedition all the resources at his command were taxed. The party, consisting of forty men, did not, however, succeed in carrying out Bonneville's plans, but were driven, by the difficult topography and utter barrenness of the country on the south side of the lake, toward the west, traveling in which direction they soon came upon the head-waters of the river called upon Bonneville's maps "Mary or Ogden's," but which is now known as the Humboldt. This river they followed until they found that "it lost itself in a great swampy lake (the sink of the Humboldt), to which there was no apparent discharge." From here the party crossed the Sierra Nevada and made their way to Monterey. Bonneville's party was thus the first to explore and map the route afterward generally followed by emigrants, and along which the Central Pacific—the first trans-continental railroad—was built. The peculiar course of Bear River, here already noticed, was shown on this map, and the general character of the drainage of the Pacific coast was, for the first time, correctly indicated by Bonneville. The first working out of any of the details of the topography of the Great Basin is due to Butler Ives, a topographer in the employ of the Central Pacific Railroad, the directors of this work having been desirous of ascertaining whether there was any practicable route across the Basin other than that through the valley of the Humboldt; which, however, was the one ultimately adopted, all other routes having been found too difficult. Still further and more detailed explorations and surveys were made on the western side of the Basin, first by the California Geological Survey, and later by the United States Engineers; and a belt a

Bonneville and his party.

hundred miles in width was also surveyed across this region, starting from the crest of the Sierra Nevada and going east to the eastern base of the Rocky Mountains. This belt was the field occupied by the Fortieth Parallel Survey under the direction of Clarence King.

Topography of the Great Basin.

The topography of the Great Basin is wholly peculiar, and bears no resemblance to either of the two just mentioned. It consists of a large number of ranges, all of which are very narrow and short, separated from each other by wide intervals of smooth, barren plains. The mountains are of a low order of magnitude for the most part, though some of the ranges and peaks attain considerable dimensions. Their appearance is strikingly different from the noble and picturesque outlines displayed in Colorado. They are jagged, wild and ungraceful in their aspect, and, whether viewed from far or near, repel rather than invite the imagination.

The Wahsatch, however, is an exception. This noble range is properly a part of the Basin Province, and is one of the finest and most picturesque of the West, but so completely does it contrast with the other basin ranges that it may be regarded as an anomaly among them. The topographical features of this region are also to count outside of the limits which Fremont assigned to the Great Basin, and reach southward towards Arizona, and northward towards Idaho and Oregon.

This Great Basin is of enormous extent, comprising nearly all of Nevada and large parts of Utah, Wyoming, Idaho, Oregon, and California. Instead of being one great basin as its name implies, it consists in reality of a number of smaller basins. It is traversed by a series of narrow ranges, which are in general highly continuous, extending sometimes for hundreds of miles, having a general north and south trend. Between these ranges lie narrow, flat valleys floored with detritus from the mountains. The rainfall over this region is so light, and the atmosphere so dry, that there are few living streams within its whole expanse. The little rivulets which trickle down the mountain side in the spring are absorbed in the valleys at their bases, so that each valley in very many cases is a sink for its own waters. On the east and the west sides, however, at the bases respectively of the Wahsatch and the Sierra Nevada, is a lake, or a series of lakes, into which flow considerable bodies of water from these ranges.

Surroundings of Great Basin.

On the east is Great Salt Lake, having an extent of 2,310 square miles, and receiving drainage from an area of 32,400 square miles, the larger part of which consists of high mountains. The rapidity of evaporation in this dry climate is so great that the lake is kept at approximately the same level despite the liberal contributions made to it by its tributary streams.

The middle portion of the basin, along a line running down eastern Nevada, is more elevated than that of the east or the west side, forming a sort of division, or water parting, between the two portions. Such of the waters as do not immediately sink flow off toward the Great Salt Lake on the one side and the sinks at the base of the Sierras on the other. The latter are known as the Carson Lake and sink, Humboldt Lake, Mud and Pyramid Lakes, forming a line along the western part of Nevada.

Into this system of sinks flow not only the streams from the east slope of the Sierras, but the Humboldt River—a stream which rises in northwestern Utah, and, flowing directly across the trends of numberless ranges, receiving more or less water from them all, reaches the Carson sink scarcely larger than at its head.

A third system of sinks may be mentioned, viz., that lying in central Oregon, of which Harney's Lake is the principal one.

The Pacific Division.

It remains to give a slight sketch of the ranges of the Pacific division. They consist of the Sierra Nevada of California, the Cascade range of Oregon and Washington Territory, and the system of Coast ranges which border the Pacific. These ranges have one very marked feature in common; they are almost precisely parallel throughout to the line of the Pacific coast. Trending in the southern half considerably east of south, they turn at about the parallel of 42° to a course almost directly north.

Cascade range.

The great mass of the Cascade range has the form of a volcanic plateau of an elevation very little above the country on its eastern border. At intervals along its crest, however, are stationed high volcanic peaks, ranging from 8,000 to more than 14,000 feet above sea level. Among those may be mentioned Mount Rainier, in Washington territory, 14,444 feet high; Mount Shasta, 14,442 feet high, in California; and Mount Hood, in Oregon, 11,225 feet in height. In northern California, just south of Mount Shasta, the range is very much broken down, and at this point the Pitt River, the head stream of the Sacramento, has cut its way through the range into California. Beyond this gorge again the range continues, with but slight change in its characteristics, until we have passed the head of the Feather River, where its character changes from that of a volcanic range to one of granite and gneissic rocks. With this change comes an increase in elevation, at first gradual, but ultimately attaining enormous proportions about latitude 36° 30'. Here the range has a great breadth, while most of the peaks reach elevations of more than 14,000 feet, and the passes have an elevation of about 12,000 feet. In this region is the highest peak of the Sierras, Mount Whitney, which falls but little short of 15,000 feet, and is the culminating point of this group.

West of the Sierras and the Cascades lies the great valley extending from Puget Sound southward into the lower part of California. It is walled in from the Pacific on the west by the Coast ranges. In Washington territory it is drained by numerous minor streams flowing through the Cascade and the Coast ranges into the Columbia River and Puget Sound. In Oregon it comprises the valley of the Willamette and the upper valleys of the Rogue and the Umpqua Rivers. In California it comprises the valley of the Sacramento and the San Joaquin. These valleys are separated from one another by cross ranges of mountains, which have the character of spurs sent down by the Cascade range, joining the Coast ranges on the west. The great valley is terminated by the westward trend of the Coast ranges and their junction with the Sierra Nevada in southern California.

Of the Coast ranges little need be said, except that they are of minor elevation compared with the eastern part of the system, ranging from 3,000 to 4,000 feet south of the bay of San Francisco to 5,000 or 6,000 feet in the northern part of the State. They have, however, a very important effect in modifying the climate of the great valley—an effect quite as important as that of the Sierra Nevada and the Cascade ranges upon the climate of the region lying to the east of them. Want of navigability is the characteristic of all the streams which drain the Cordilleras. Instead of vast stretches open to steam navigation, as with the Mississippi and its tributaries, allowing access to areas 2,000 and 3,000 miles away from its mouth, we have the Colorado, which is of little account for the purposes of navigation, the Columbia, with two portages before the Cascade range is crossed, and the Sacramento and the San Joaquin, navigable for moderate sized boats for only a few score of miles. With these exceptions there is no stream of any importance opening access to the interior along the whole Pacific coast. On the other hand, the amount of water-power stored in the streams of the west is fabulous. All the streams fall rapidly through nearly their entire courses, and in and near the mountains there is an abundance of water.

Coast ranges.

Rivers.

THE APPALACHIAN REGION.

Leaving now the Cordilleras, we have next to consider the eastern border of our territory—the northeast and southwest trending mass of ranges—known as the Appalachian region. In this portion of our brief *resume* of the physical features of the United States we shall have to rely mainly on the labors of others, and especially on those of Prof. Guyot and of Prof. J. P. Leslie, of the Pennsylvania Geological Survey, who have labored with great zeal and ability in making the topography of our eastern border intelligible.

A glance at the map shows that the central portion of North America, from the Gulf of Mexico to the Arctic ocean, is a region of great rivers and lakes, and not of mountains. A sinking of the land of less than 1,000 feet would open a water-way through from north to south; 2,000 feet of such a sinking, or an equivalent rise of the ocean, would divide our territory into two distinct and remote portions. On the east we should have a comparatively narrow belt of land, extending in a northeast and southwest direction from Pennsylvania to Georgia, with groups of outlying islands on the north, especially in about latitude 41°, where the tops of the Green, the White, and the Adirondack mountains would rise in the form of lofty and precipitous islands above the waste of waters. On the west the mass of land remaining uncovered would be of grand, almost continental dimensions, for its breadth would be fully equal to 1,500 miles, narrowing as we followed it northward, while in length, north and south, it would extend entirely across our present territory. The breadth of the ocean separating these masses of land would be not far from a thousand miles.

Appalachian chain.

The Appalachian chain extends from the promontory of Gaspé, in a general southwesterly direction, for a distance of about 1,300 miles, into Alabama, where it dies out, and is buried under the horizontal strata of more recent geological formations, which cover nearly the whole surface of that state. The base from which this chain rises on the eastern side is the Atlantic seaboard, which, in the early history of the United States, seemed to be the whole country, and which is still commercially the most important, and is the seat of our largest cities. The plain is slightly inclined toward the Atlantic, and its elevation above the sea is inconsiderable. In New England it hardly exceeds 300 to 400 feet; but toward the south, after passing the bay of New York, where it is nearly at the sea level, it gains in altitude, and also in width, finally attaining a height of a thousand feet at the base of the mountains and a breadth of some 200 miles. The western base of the Appalachian range is a plateau region, which descends gradually toward the great lakes and the tributaries of the Ohio, having a general elevation of a thousand feet or more, but deeply gashed by the streams which traverse it and run in valleys depressed from 300 to 500 feet below the general level of the country.

The Appalachian chain presents, in many of its features, a most marked contrast to the Cordilleras just described. Prof. Guyot calls attention to a conspicuous feature of the most folded portion of the Appalachians, characterizing the chain through its entire length; that is, the existence of a great central valley, running through the system from northeast to southwest, which can be traced without difficulty, although not perfectly uniform in its development. It is the Lake Champlain and Hudson River valley in New York, the Kittatinny valley of Pennsylvania, the great valley of Virginia, and finally, still farther south, the valley of East Tennessee. The chain, or the system of chains, bordering this central depression on the southeast is also a persistent feature of the Appalachian system; for it extends, with but few interruptions, from Vermont to Alabama, being known by a variety of names as it passes from one state into another. It is the Green Mountain range of Vermont, the Highlands of New York, the South Mountains of Pennsylvania, the Blue Ridge, of Virginia, and, finally, the Iron, Smoky, and Unaka mountains of North Carolina and Tennessee.

Possessing these features in common as a whole, the Appalachian chain presents three subdivisions, each exhibiting its own well-marked peculiarity of structure. These are the northern, extending from Gaspé to the Hudson; the middle, from New York to the Kanawha, or New river, in Virginia; the southern from New river to the southwestern extremity of the system. Each of these subdivisions has its peculiar curvature and general direction. The northern trends to the north from the Hudson river to near the Canada line, there bends to the eastward, sweeping a great

curve, so as to present on the whole its concavity to the southeast; the middle subdivision also curves quite regularly, the ridges trending from east and west around to southwest, so that the concavity faces the Atlantic shore; while the most southern portion of the range, from New river southward, bends to the west again, so as to form a gentle curve concave toward the northwest.

The most northern division of the three is quite distinct from the one next south, both geographically and geologically. It includes all the mountain groups and ranges north and east of the valleys of the Mohawk and the Hudson rivers, which make a complete break through the system, both vertically and longitudinally, forming the great natural highway between the east and the west, or between the great lakes and the Atlantic seaboard. This was the first route across the country which was traversed by canal and by railroad. So complete is the physical break here that a rise of the ocean of 400 feet only would separate all the extensive region included between the St. Lawrence, the Atlantic ocean, and the Hudson and Mohawk valleys into a great island entirely detached from the rest of the continent. A rise of only 140 feet only would detach all that country which lies east of the Hudson and Lake Champlain.

Geographical treatment.

In any geographical treatment of this eastern group of the Appalachians the subdivisions taken will necessarily be rather artificial, for the mass of elevation is very irregular in its development. The most continuous ranges are the White mountains, the Green mountains, and the Adirondacks. Of the first-named group Mount Washington is the culminating point, 6,288 feet high; of the last mentioned, Tahawus, or Mount Marcy, with an altitude of 5,379 feet, is the dominating peak. Greylock, in Massachusetts (3,505 feet), and Mount Mansfield, in Vermont, 4,430 feet, are the highest points in those states.

The line of summits extending through Massachusetts and New Hampshire, beginning with Wachusett, on the south, and extending up to the White mountains, through Monadnock, Sunapee, Kearsarge, and other peaks, is broken and irregular. Both the White mountains and the Adirondacks are rather isolated masses, while the Green Mountains proper are in more intimate connection with the Canadian range, which terminates in Gaspé.

The Central division of the Appalachian chain extends from the Hudson river to the Kanawha, which makes an almost complete cut across the chain, heading in the Blue Ridge, and marking an important change in the character of the topography. This central division is about 450 miles in length. It is very narrow toward its northern end, but widens out in Pennsylvania, decreasing again in Virginia. It is composed of a considerable number of subordinate chains, much curved toward the west, and remarkable for their regularity, their parallelism, their abrupt declivities, and their moderate elevation, both relative and absolute, which rarely rises to 2,500 feet above the sea-level.

West of this division of the Appalachian chain is the great plateau, which occupies all that part of New York which lies south of the Mohawk, and also the northwestern part of Pennsylvania, and reaches an elevation near Lake Erie of 2,000 feet. From this table-land the drainage descends by the great lakes to the St. Lawrence to the Gulf of Mexico by the Ohio, and to the Atlantic by the Susquehanna, which breaks across the whole chain, finding its way in the most unexpected manner through gaps in the different ranges.

The topography of the Appalachians in Pennsylvania has been carefully worked out by the State Geological Survey, and it is so remarkable in its character that some additional details may with propriety be given in regard to that portion of the chain.

According to Prof. H. D. Rogers, the mountain-zone of Pennsylvania may be divided into five well-marked parallel belts, which are as follows, when enumerated in order from the east toward the west: 1st. The South mountains, already mentioned as being the continuation of the Highlands of New York, and the equivalent of the Blue Ridge of Virginia. 2d. The great Appalachian valley. 3d. The central Appalachian ridges, or the Appalachian chain proper. 4th. The sub-Alleghany valley. 5th. The Alleghany Mountain, or the southeast escarpment of the Alleghany plateau.

The South Mountains have already been alluded to as part of the system of ranges bordering the great central depression of the Appalachians on the east. In Pennsylvania this belt consists of two detached ranges of hills, one of which is the prolongation of the New York Highlands, the other the northeastern termination of the Blue Ridge. Both of these groups of hills have a moderate elevation in Penusylvania, hardly exceeding 600 or 700 feet.

The Appalachian valley, or Kittatinny valley, as it is usually called in Pennsylvania, stretches from the Delaware to Maryland, forming a part of the great central valley previously mentioned. It has an elevation of from 200 to 600 feet, and forms a broad, moderately undulating plain, having a width of from 10 to 18 miles. This valley is, beyond doubt, one of the most favored parts of our country—climate, soil, mineral resources, and scenery all combining to make it attractive to settlers.

The third division, or the Appalachian chain proper, may be thus described, using nearly the language of Professor H. D. Rogers: It is a complex chain of long, narrow, very level mountain ridges, separated by long, narrow, parallel valleys. These ridges sometimes end abruptly in swelling knobs, and sometimes taper off in long, slender points. Their slopes are singularly uniform, being in many cases unvaried by ravine or gully for many miles; in other instances, they are trenched at equal intervals with great regularity. Their crests are, for the most part, sharp, and they preserve an extremely equable elevation, being only here and there interrupted by notches or gaps, which sometimes descend to the water-level, so as to give passage to the rivers. The whole range is the combined result of an elevation of the strata in long, slender, parallel ridges, wave-like in form, and of excessive erosion of them by water; and the present configuration of the surface is one which demonstrates that a remarkable and as yet little understood series of geological events has been concerned in its formation. The ridges, which are but the remnants of the eroded strata, are variously arranged in groups, with long, narrow crests, some of which preserve remarkable straightness for great distances, while others bend with a prolonged and regular sweep. In many instances, two narrow, contiguous parallel mountain crests unite at their extremities and inclose a deep, narrow, oval valley, which, with its sharp mountain sides, bears not unfrequently a marked resemblance to a long, slender sharp-pointed canoe.

Between the Appalachians and the Rocky Mountains there are within our borders no connected masses of mountain ranges; isolated hill-ranges rise like islands at various points, as in Missouri and Arkansas, and there are a few short ranges on the south shore of Lake Superior.

North of the great lakes and the St. Lawrence, however, there is the dividing ridge which separates the waters flowing into the last named stream from those which run into Hudson's bay. This is an imperfectly known region, wonderfully cut up by rivers and dotted with lakes. The highest point of the Laurentian range, as these mountains are called, is supposed to be where the Saguenay cuts the chain, and 4,000 feet is given as the approximate elevation, while peaks in the parallel ridges nearer the St. Lawrence exceed half that height. Among the summits seen with such picturesque effect from Quebec, Mt. St. Ann is the highest, and the elevation is given by Bayfield at 2,687 feet.

This range falls off in elevation as we follow it west, and in the country between the Ottawa and lake Huron the highest summits do not appear to exceed 1,500 to 1,700 feet. The range is made up of rounded hills, densely wooded on its highest portion, almost exclusively with coniferous trees. Its valleys are very wide and full of great ponds and lakes, so that one may traverse almost the whole region with the aid of the birch canoe. Sir William Logan noted, in 1863, that over a thousand lakes have already been laid down on the maps of the Canadian portion of the Laurentian mountains, although the region had been as yet only imperfectly explored.

The Atlantic Plains.

East of the Appalachian system, and separating it from the Atlantic, is the strip of country known as the Atlantic plain. This is the portion of the United States first occupied, and it is to-day the most densely settled portion of the country. In New England this region has a widely varying breadth and rough, irregular surface, while its soil in general is not sufficiently rich to enable the farmers of this region to compete successfully in the production of wheat or corn with those of the Mississippi valley.

The breadth of the Atlantic plain is least about the bay of New York, the ranges of the Appalachian system here reaching nearly to the sea-coast. Southward from this point it increases gradually in breadth, till it reaches its maximum in South Carolina and Georgia. This part, which comprises by far the larger portion of the Atlantic plain, has a very uniform, gentle slope from the foot of the mountains to the sea. The only feature about it which requires notice is the line of separation between the metamorphic formations, extending eastward from the Appalachians, and the recent stratified beds. This line is marked very generally by falls or rapids in the streams flowing seaward, which are in very many cases the sites of valuable water-powers, and mark the head of navigation in all streams of any considerable size, as in the Potomac at Georgetown, and in the James at Richmond.

General character.

The general character of the coast-line may be briefly described. In Maine it is bluff and rocky, with deep water immediately off the shore, which is deeply indented by numerous bays and arms of the sea. These in turn are dotted by hundreds of islands of greater or less size. Proceeding southward, the character of the coast gradually changes from this bluff, rocky nature at first to sandy beaches, as in Massachusetts and on Long Island, with small extents of coast swamp. This character develops farther in New Jersey, so that we have along the whole coast a line of sandy islands or reefs, back of which are coast marshes and swamps. The general character of these is briefly described by Professor Cook in his volume on the geology of New Jersey, under the head of "Tide Marshes":

They are of very recent origin, and, in fact, are formed largely within the memory of the present generation. The interval between high-water mark on the shore and the beaches or barriers on the sea-side is mainly occupied by marsh. There are between 250,000 and 300,000 acres of marsh on the coast of New Jersey. The marshes are covered with grass, weeds, or coarse sedge; there is no growth of wood upon them; the upper surface is near the level of high water, the parts near the water-course being high enough not to be covered by ordinary tides, while the parts more remote from the water-course are lower, so as to be always wet. Underneath, the sod which covers them is made of soft earth of various qualities; the depth of this underlying mud is variable; all, however, coming within the extreme depth of 40 feet.

Farther southward the breadth of this swamp section along the coast increases. On the eastern shore of Maryland there is inside of the line of reefs a section, several miles in breadth, of swamp and overflowed land—a paradise for sea-fowl and for the hunter.

In North Carolina the reefs inclose, besides immense swamp regions, large bays or sounds, such as Pamlico and Albemarle. The character of the swamps and reefs of this state is well given by Professor W. C. Kerr (*Geology of North Carolina*, vol. I, 1875):

The chain of long, linear sand islands called "The Banks," which fringe the entire coast, constitutes a very remarkable feature of the region. Though composed of drifting sands, they form an impregnable barrier to the waves of the Atlantic. They are, in fact, sand dunes of various elevations, from a few feet above tide level (in many cases broken over by storm tides) to 25 or 30 feet, and sometimes more, as in Killdevil hills, along Corrituck sound. The breadth of these islands varies from a few rods to

more than 2 miles. The largest of these, and the widest, is known as Hatteras island, the easternmost point of which is the well-known cape Hatteras. These islands are composed partly of flat marshes and partly of swell and ridges of beach-sand, which the wind has heaped in ridges, often far beyond the reach of the highest waves.

As the sand and comminuted shells are rolled back in waves from the beach by the winds, they are in part caught and fixed by straggling tufts of coarse grass, which has the power of continuous growth upward with the rise of the knobs and ridges of sand, and they are in part carried over into the flats and marshes and the shallow sounds beyond, which are thus gradually silting up. The banks are generally covered with low, scrubby thickets of cedar, live-oak, pine, yaupon, myrtle, and a number of smaller shrubby growths.

Swamps, pocosins, and savannas.—There is a large aggregate of territory (between 3,000 and 4,000 square miles), mostly in the counties bordering on the sea and the sounds, known as swamp lands. They are locally designated "dismals," or "pocosins," of which the Great Dismal Swamp, on the borders of North Carolina and Virginia, is a good type. They differ, essentially in their characteristic features from an ordinary swamp. They are not alluvial tracts, or subject to overflow. On the contrary, they occupy the divides or water-sheds between the rivers and sounds, and are frequently elevated many feet above the adjacent streams, of which they are the sources. Some of them are in large part mere peat swamps or bogs, being characterized by the occurrence of an accumulation of decayed and decaying vegetation, from 1 or 2 to 10 feet deep and even more, which, with the growing plants, acts as a sponge, arresting or retarding the escape of the rain-water, whether by evaporation or efflux. The prominent ingredients are peat and fine sand, in various proportions, and, when of any agricultural value at all, there are also small proportions of clay, iron, lime, and alkalies. The vegetation varies with the character of the soil, and serves, therefore, as an index of its fertility. The prevalent growth of the best swamp soils is black gum, poplar, cypress, ash, and maple. As the soil becomes more peaty, the proportion of cypress increases. Where juniper abounds peat is in excess, and the soil of little value or none. On the best lands there is often besides a rank growth of canes; but such a growth is also often found on soils too peaty to be of any value. Much of the poorest and most worthless tracts of swamp, which are covered with several feet or half decayed wood and other vegetable matter saturated with water, is occupied by a stunted and scattered growth of bay, swamp pine, and other scrubby vegetation; or, if the drainage be a little better, with a thickety growth of bays, gallberries, and a few other shrubs, with an occasional pine and maple. Most of the large bodies of swamp contain lands belonging to all these descriptions, and inclose, besides, within their boundaries, knolls, hummocks, belts, and ridges, like islands, of firm land, and some of them are areas of barren, sandy soil, covered with a tangle of brambles and tufts of sedge, and in the middle of several of them occur fresh-water lakes of considerable extent.

These swamps are, taken as a whole, quite well settled, a large proportion of the inhabitants being colored. This is particularly the case in South Carolina, in which state much of the swampy lower coast region is utilized for rice plantations. The Okeefenokee swamp, of Georgia and Florida, is rather an inland swamp, and is described elsewhere. The Everglades of Florida, which appear to offer great difficulties to settlement, are also sketched in another part of this report. The swampy region along the coast extends, with but few minor interruptions, all the way down the Atlantic coast and around the Gulf. It is not, however, so markedly characteristic along the Gulf coast in Alabama and Mississippi as farther west. In Louisiana it has a great breadth, and is almost uninhabitable. In Texas, although the character of the coast continues to be the same so far as relates to the line of low, sandy, outlying islands, yet the area of the coast swamp becomes very much less, being confined to a small patch about the Sabine lake and narrow strips along a number of the streams. Whether it is due to geological causes, or to the lighter rainfall upon this section of the coast, is a question which there is not space to discuss here.

The broken, irregular course of the whole Atlantic and Gulf coast affords many excellent harbors, particularly on the New England coast, where the harbors are large, deep, and well sheltered; farther southward the entrances are narrow and shelving, and are liable to be choked up by sand drifted in by storms. The streams in nearly all cases form bars across their months, formed by the detritus brought down from the upper waters.

The Pacific coast, as compared to the Atlantic, is extremely simple. It contains few harbors of any value to navigation. Those of San Diego and San Francisco are the principal and almost the only ones. The coast is, in general, bluff and rocky, and the water is deep immediately off shore.

THE POLITICAL AND NATURAL SUBDIVISIONS.

Having given a description of the physical character of the area covered by the United States, without reference to political divisions, it becomes necessary to state how this region is divided politically, and how these divisions can be grouped, in a manner as natural as possible.

Some difficulties are thrown in the way of such a subdivision of the country as shall meet with general acceptance by the fact that some of the States and Territories are so large that they include areas of very different physical character; and also because a nomenclature was introduced, and extensively made use of, when one half the present area of the country was so little known or considered that a name for it was not thought of as being necessary.

The area of the United States is at present divided into forty-nine subdivisions, excluding Alaska. There are forty-four States, three Territories, and two other subdivisions, neither States nor Territories—the District of Columbia and the Indian Territory.

Any Territory is likely, at any time, to be received into the Union as a State; and this may be done by subdividing the Territory, making a State of one portion and allowing the remainder to remain in a Territorial condition, or by admitting the whole as one State, or by dividing it into two or more States. Only once has a State been divided after having been received into the Union—namely, Virginia—and this was the result of the Civil War; and it is not possible to say under what circumstances such a thing is likely to happen again. Nor has any State been remanded back to the Territorial condition after having been received into the Union; although one State—Nevada—has less than half the population required for the election of one representative to Congress, according to the last apportionment, based on the census of 1880. There is, in fact, no provision in the Constitution for this exigency.

The desirability of grouping these forty-nine political divisions (Alaska being omitted as not continuous with the rest of the United States) according to their geographical situation and topographical and climatic conditions, so that different regions may be spoken of by some collective name, will be evident to all.

The plan suggested for the subdivision of the area included within the United States by Mr. Gannett, geographer of the census of 1880, was "to divide the country into three great divisions, corresponding to the three primary topographical divisions of the country: the Atlantic region, the region of the Great Valley, and the Western or Cordilleran region." The physical character of these different regions has already been indicated at some length in the preceding pages. The region of the Great Valley is called by Mr. Gannett the Central Region, which is again subdivided into two parts—the Northern Central and the Southern Central—the Ohio River and the southern boundary of Missouri and Kansas being the dividing line. The Atlantic Division is also divided by him into two subdivisions by a line following the south boundary of Pennsylvania and New Jersey—these two subdivisions being called, respectively, the North Atlantic and South Atlantic divisions. On the east, the Western or Cordilleran division is marked by the eastern boundaries of New Mexico, Colorado, Wyoming and Montana. Physical Character.

The following table shows the area of each of these divisions in square miles and in percentage of the entire area of the United States:— Political divisions.

	Area.	Percentage of total area.
North Atlantic	168,715	5.6
South Atlantic (including Delaware Bay)	283,155	9.4
Northern Central	765,855	25.3
Southern Central	614,550	20.3
Western	1,193,275	39.4
Total	3,025,500	100.0

[In the Western Division, as here limited, Mr. Gannett includes an area of 5,740 square miles of "unorganized territory," lying north of Texas and west of the Indian Territory.]

The adoption of this scheme of subdivision of the country does not the less render desirable and convenient for various purposes a different nomenclature for certain regions, based more exclusively on geographical position. Thus the States bordering on the Gulf of Mexico will naturally often be spoken of as the Gulf States; the region of the Great Lakes will be so designated, and this again subdivided into the Upper and Lower Lake Regions; while each great river will give a name to its own adjacent region, as the Ohio Valley, the Upper and Lower Mississippi Valley, the Upper Missouri, etc.

Appended is a statement of the names of the political divisions included in each subdivision of the United States, as suggested by Mr. Gannett:

Division.	Subdivision.	States Within Subdivision.
Atlantic.	North Atlantic.	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania.
	South Atlantic.	Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida.
Central.	Northern Central.	Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, North Dakota, South Dakota, Iowa, Nebraska, Kansas, Missouri.
	Southern Central.	Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Indian Territory, Louisiana, Texas.
Western.		Montana, Idaho, Wyoming, Colorado, New Mexico, Utah, Nevada, Arizona, Washington, Oregon, California.

The tabular statement following gives for the States and Territories a *resume* of their areas, population in 1880 and 1890, population per square mile at the latter date, and the increase per cent. during the decade 1881-90. The Territories are given in italics in the table.

POLITICAL AND NATURAL DIVISIONS.

AREAS AND POPULATION—CENSUS OF 1890.

States and Territories.	Area in Square Miles.	Population, 1880.	Population in 1890.		Increase Per Cent. 1880–1890.
			Total.	Per Sq. Mile.	
Alabama	51,540	1,262,505	1,508,073	29.3	19.5
Arizona	112,920	40,440	59,691	0.6	47.5
Arkansas	53,045	802,525	1,125,385	21.2	40.2
California	155,980	861,694	1,204,002	7.7	39.2
Colorado	103,645	194,327	410,974	3.9	111.5
Connecticut	4,845	622,700	745,861	153.9	19.8
North Dakota	74,100	36,909	182,425	2.6	393.2
South Dakota	76,920	98,268	327,848	4.3	235.7
Delaware	1,960	146,608	167,871	85.7	14.5
DIST. OF COLUMBIA	60	177,624	229,796	3829.9	29.4
Florida	54,240	269,493	390,435	7.4	44.9
Georgia	58,980	1,542,180	1,834,366	31.1	18.9
Idaho	84,290	32,610	84,229	1.0	158.3
Illinois	56,040	3,077,871	3,818,536	68.2	24.1
Indiana	35,910	1,978,301	2,189,030	60.7	10.7
Iowa	55,475	1,624,615	1,906,729	34.4	17.4
Kansas	81,700	996,096	1,423,485	17.4	42.9
Kentucky	40,000	1,648,690	1,855,436	46.4	12.5
Louisiana	45,420	939,946	1,116,828	24.6	18.8
Maine	29,895	648,936	660,261	22.1	1.7
Maryland	9,860	934,943	1,040,431	105.5	11.3
Massachusetts	8,040	1,783,085	2,233,407	277.8	25.2
Michigan	57,430	1,636,937	2,089,792	36.4	27.7
Minnesota	79,205	780,773	1,300,017	16.4	66.5
Mississippi	46,340	1,131,597	1,284,887	27.7	13.5
Missouri	68,735	2,168,380	2,677,080	38.9	23.4
Montana	145,310	39,159	131,709	0.9	239.1
Nebraska	76,185	452,402	1,056,793	13.9	133.6
Nevada	109,740	62,266	44,327	0.4	—28.9
New Hampshire	9,005	346,991	375,827	41.7	8.3
New Jersey	7,455	1,131,116	1,441,017	193.3	27.4
New Mexico	122,460	119,465	144,863	1.2	21.3
New York	47,620	5,082,871	5,981,934	125.6	17.7
North Carolina	48,580	1,399,750	1,617,340	33.3	15.6
Ohio	40,760	3,198,062	3,666,719	89.9	14.6
Oklahoma	.....	.....	61,071	.....	.....
Oregon	94,560	174,768	312,490	3.3	78.8
Pennsylvania	44,985	4,282,891	5,248,574	116.7	22.6
Rhode Island	1,085	276,531	345,343	318.3	24.3
South Carolina	30,170	995,577	1,147,161	38.0	15.5
Tennessee	41,750	1,542,359	1,767,723	42.2	14.4
Texas	262,290	1,591,749	2,232,220	8.5	40.2
Utah	82,190	143,963	206,495	2.5	43.4
Vermont	9,135	332,286	332,205	36.4	—0.2
Virginia	40,125	1,512,565	1,655,911	41.1	8.9
Washington	66,880	75,116	349,516	5.2	365.3
West Virginia	24,645	618,457	760,448	30.9	22.9
Wisconsin	54,450	1,315,497	1,683,097	30.9	27.9
Wyoming	97,575	20,789	60,589	0.6	191.5
United States	2,900,170	50,155,783	62,480,540	21.5	24.6
Alaska	531,409	33,426	.....	.....	.....
Indian Territory	69,830*	78,1421	.....	.....	.....

* This includes "Unorganized Territory." † Estimate.

CLIMATE.

In endeavoring to set forth the principal features of the climate of the United States, it will be assumed that the reader has made himself acquainted with the topography of the country, as briefly indicated in the preceding pages. The great influence which certain of these features have on the distribution of the winds, the rainfall, and the temperature will be sufficiently apparent from that which follows.

The United States extends from the tropics north across the temperate zone, and from sea-level to an elevation of over 14,000 feet—an elevation which carries with it an arctic climate. The mean annual temperature ranges over more than 40° F., while the extremes of recorded temperature run from 55° below zero up to a maximum above 115°: The mean temperature of the hottest month of the year, July, ranges from below 60° to above 90°, while the mean temperature of the coldest month ranges from zero to more than 65°. Were the country a plain, the mean temperature of the year would be almost purely a question of latitude; a difference of elevation, however, especially when it takes the form of a mountain range, causes a deflection southward of the isotherminals, an abrupt rise of about 300 feet of elevation implying a decrease of annual temperature of one degree. Thus we find that the Appalachian system causes a very marked deflection to the southward of the isothermals. On the plains, however, where the upward slope is very gradual, it is to be noted that the elevation causes little or no deflection southward of the lines of temperature, the plains and plateaus generally having a mean annual temperature nearly or quite as high as points in the same latitude in the Mississippi valley or on the Atlantic coast. The temperature of the great western plains and plateaus is, however, modified locally to a marked extent by the exposure to west and northwest winds, which have an unbroken sweep in some places for hundreds of miles, acquiring tremendous force. Attention should be called here to the well-known fact that the climate of central Montana, including most of the settlements on the upper Missouri, is abnormally warm. It lies at a comparatively low elevation, being only 3,000 to 4,000 feet above sea-level, and is sheltered from the fierce westerly winds by the Missouri range, while the northerly winds, to which it is exposed, come from the moisture plains of the Saskatchewan.

The two maps showing the mean temperature of the warmest month, July, and the mean temperature of the coldest month, January, as given in the United States Census for 1880, Vol. 1—illustrate, though only to a limited extent, the range of temperature in different sections of the country. The former shows a comparatively limited number of grades, running from 60° to 90°, the lines following approximately the parallels of latitude, except where deflected by mountain masses. The influence of the coast in averaging the climate is distinctly perceptible on this map. There is apparently a northward movement of the temperature lines in the Cordilleran region, showing that in the summer the temperature is abnormally high in this arid section. These characteristics are illustrated conversely by the January map, which also shows the influence of the sea and other large bodies of water, while in the Cordilleran region the temperature lines are borne southward by the aridity and consequently extreme character of the climate. The fourth of these temperature maps, showing a generalization from the highest recorded readings of the thermometer, coupled with the fifth map, which shows a similar generalization with regard to the minimum temperature, illustrates the extreme range of the thermometer in different parts of the country. In the former we see a belt running along the seacoast from Maine to Texas, where the thermometer never rises above 100°, while within it is a region, stretching from New York southward along the Atlantic plain and the lower Mississippi valley, where the maximum reaches 105°, thus illustrating in the clearest manner the effect of the sea in averaging the temperature. The same thing is illustrated, though not so markedly, upon the map of minimum temperatures.

The fourth map shows also another peculiar characteristic, viz, the fact that as we pass up the slope of the plains the maximum temperature increases, not on a parallel, as in the case of the mean annual temperature, but approximately on a contour or on a meridian, being apparently proportional to the aridity of the atmosphere and the amount of rainfall. This characteristic is, to a certain extent, disguised in the heart of the Cordilleran region by reason of the great diversity of surface which is encountered there, but in general it holds good throughout.

The map showing minimum temperatures is not so clear on these points. Its lines follow parallels more nearly; but there is a marked deflection toward the southwest as we pass westward from the Mississippi valley. The characteristics of this map are still further concealed by the effect of the details of topography in the Cordilleran region. A marked change in temperature, as well as in rainfall, takes place at the crest line of the Sierra Nevada and the Cascade range. This change is not particularly apparent in the mean annual temperature, but on the map showing the temperature of July and January it is quite apparent, being shown by the slight difference between these maps. At the bay of San Francisco the difference between the mean temperature of July and that of January is but 10°. This effect is still more marked in the last two maps, where, in the Mississippi valley, the range between maximum and minimum averages 110°, and in the Cordilleran region 125°. On the Pacific coast it decreases to only 60°, showing that this section of the country enjoys by far the most uniform climate as regards temperature.

The material for these temperature and rainfall maps was drawn mainly from "Temperature Tables" and "Rainfall Tables" prepared by Professor Charles A. Schott, and published by the Smithsonian Institution. The map of mean annual temperature was compiled, very largely, directly from Mr. Schott's admirable chart in the first of the above-mentioned volumes. The rainfall maps were prepared previous to the publication of the last edition of the Smithsonian "Rainfall Tables," and, as much new material had been collected in addition to that published in the first edition, the maps were plotted from original sources.

No less than 98 per cent of the total population lives between 40° and 70° F. of mean annual temperature, leaving a very small proportion to be distributed among the other sections. Of these groups, those having a temperature above 55° contain the entire cotton region; those above 70°, the sugar and rice regions; while between 50° and 60° is comprised most of the tobacco region. The prairie region of the Mississippi valley lies almost entirely below 55°, while the great wheat region of Minnesota and Dakota is mainly below 40° of mean annual temperature.

The hottest part of the country is, naturally, the southern end of Florida, while southern Texas and southwestern Arizona come next in degree of temperature.

A rough computation shows that the mean annual temperature of the country is about 53° F., to which the location of the population almost precisely corresponds, differing from it by only a fraction of a degree.

We give below a table prepared by selection from the voluminous records of the recent work on American temperature, showing the mean annual temperature of the atmosphere at a given point in each of the forty-nine States and Territories of the Union. The place is selected as either the capital or some leading city or town where observations have been most continuously kept:

State or Territory.	Place of Observation.	Mean annual temperature.	State or Territory.	Place of Observation.	Mean annual temperature.
Alabama	Mobile	66°	Mississippi	Jackson	64°
Alaska	Sitka	45°	Missouri	St. Louis	55°
Arizona	Tucson	69°	Montana	Helena	42°
Arkansas	Little Rock	63°	Nebraska	Omaha	49°
California	San Francisco	55°	Nevada	Carson City	46°
Colorado	Denver	48°	New Hampshire	Concord	43°
Connecticut	Hartford	50°	New Jersey	Trenton	52°
Dakota	Fort Randall	47°	New Mexico	Santa Fé	54°
Delaware	Wilmington	53°	New York	Albany	45°
Dist. of Columbia	Washington	55°	North Carolina	Raleigh	59°
Florida	Jacksonville	69°	Ohio	Columbus	53°
Georgia	Atlanta	64°	Oregon	Portland	53°
Idaho	Fort Boise	52°	Pennsylvania	Harrisburg	51°
Illinois	Springfield	50°	Rhode Island	Providence	51°
Indiana	Indianapolis	51°	South Carolina	Columbia	63°
Indian Territory	Fort Gibson	60°	Tennessee	Nashville	58°
Iowa	Des Moines	49°	Texas	Austin	67°
Kansas	Fort Riley	51°	Utah	Salt Lake City	52°
Kentucky	Louisville	56°	Vermont	Montpelier	43°
Louisiana	New Orleans	69°	Virginia	Richmond	57°
Maine	Augusta	42°	Washington T.	Olympia	51°
Maryland	Baltimore	54°	West Virginia	Wheeling	54°
Massachusetts	Boston	45°	Wisconsin	Madison	45°
Michigan	Detroit	47°	Wyoming	Fort Bridger	42°
Minnesota	St. Paul	42°			

The position of the isothermal lines in the United States may now be noticed; and in this connection the influence of the topography of the country becomes at once extremely apparent. The isothermal lines of the mean annual temperature have quite a marked regularity from the Atlantic coast west to the foot of the Rocky Mountains, being in general only slightly modified in their direction, which is nearly east and west. This indication of a change of temperature, essentially dependent on that of latitude, is in striking contrast with the condition of things on the Pacific coast, as will be seen farther on. But as soon as the Cordilleran region is reached, the isothermal lines are bent away from their east and west course, and become irregular and often concentric in their passage across the various mountain ranges.

By the character of these isothermal lines, three climatic divisions of the United States are suggested: 1. The Eastern Region, including all the territory lying east of the foot of the Rocky Mountains; 2. The Plateau and Mountain Region of the Cordilleras; 3. The Narrow belt on the Pacific coast, west of the Cascade and Sierra Nevada Ranges.

The Eastern division is, of course, by far the most important and best known in its details, since it is that region where the statistics go back the farthest, and where the population and wealth are concentrated. Its climatic conditions will, therefore, first be considered. As the topographical features of this division are simple, and do not anywhere interpose any very decided or not easily overcome barrier to the movement of the people, so the climate partakes of a similar character, the passage from one type to another being gradual and decidedly uniform, although rapid.

Isothermal lines.

The isothermal lines of mean annual temperature of 44° and 72°, include nearly the entire area of the United States. The corresponding degrees of latitude are about 45° and 29°, so that the average change of temperature with the latitude is a trifle over 1.6 for each degree of latitude. The importance of this rapid change of temperature with the latitude, with reference to the intellectual and commercial development of the country is obvious, and has been already pointed out by eminent climatologists.

The isothermal of 72° passes through the center of Florida; then, entering Texas, is suddenly deflected southward, running parallel with the isothermals of 68° and 64° to the boundary line of Mexico. The isothermal of 76° crosses the extreme south end of Florida, almost on the parallel of 25°. The isothermal of 68° enters Florida just below the parallel of 31°, and crossing the state in an almost direct east and west line, passes through the southern part of Alabama, Mississippi, and Louisiana, and into Texas, to the meridian of 102°, where it is suddenly deflected southward to the boundary line of Mexico. The isothermal of 64° enters the United States on the South Carolina coast. It passes in a westerly direction very nearly on the parallel of 33° as far west as the meridian of 100°, when it is deflected southward, like the other isothermals, by the gradually increasing elevation of the Plateau Region. The isothermal of 60° is, in its general course, parallel with that of 64°, except that the deflection to the south between the meridians of 83° and 87° is greater, owing to the influence of the lofty southern extremity of the Appalachians. It traverses North Carolina, South Carolina, Alabama; passes into the southern part of Tennessee; is deflected into Mississippi; then enters Tennessee again, passing across Arkansas and the Indian Territory into New Mexico, when it is deflected toward the south, making two loops as it runs nearly coincident with the meridian of 101° to the parallel of 31° in Texas, when it again bends to the west, and, after a southwest course, is deflected toward the northwest. The isothermal of 56° enters the United States on the Maryland coast. Its general direction to the meridian of 87° is southwest. Here, in central Alabama, it is deflected to the northeast following this general direction to the parallel of 38° in Kentucky, when it bends again to the west and runs in an almost direct westerly course to the meridian of 101°, where it is deflected to the south, passing through New Mexico into Texas, where it suddenly bends back to the north, and, after making a long loop in New Mexico, passes in a northwesterly course across Arizona. The isothermal of 52°, west of the Appalachians runs almost coincidently with the Ohio river as far as Cincinnati, then in an undulating course passes in a nearly westerly direction through Indiana, Illinois, Northern Missouri, and near the northern boundary of Kansas to the eastern border of Colorado, where it is deflected to the south, and runs in a direction nearly south by west for a distance of fully five hundred miles along the eastern base of the Rocky Mountains. A large area is included between the isothermals of 44° and 52°. It comprises: New England, except the larger part of Maine, New Hampshire and Vermont; the southern and central portions of New York; Pennsylvania; nearly all Ohio; the northern two-thirds of Indiana and Illinois; the southern half of Michigan and Wisconsin; nearly all of Iowa; the southeastern corner of Minnesota; nearly the whole of Nebraska; and the southern third of Dakota. The isothermal of 40° enters the United States on the eastern border of Maine, and, passing through the center of the state, traverses the northern end of New Hampshire and Vermont. It then passes out of the United States, but enters the country again at the western end of Lake Superior, crossing the central part of Minnesota, bending to the south on the meridian of 97°, and making a large loop in Eastern Dakota, then turning to the northwest, and again passing out of the United States at the meridian of 107°.

West of the meridian of 105°, within the second climatic division or the Cordilleran region, the course of the isothermal is largely determined by the position of the several mountain ranges embraced in that area of complicated topography to which the name of Cordilleras is given. These ranges, unlike the Appalachians, are lofty enough to produce a decided influence upon the climate, although nowhere reaching what may be called the region of perpetual snow. This deficiency of lasting accumulations of snow, however, is in very considerable part due to the smallness of the precipitation. If this were as great in the Rocky Mountains as it is in the Sierra Nevada, the former ranges would, no doubt, be covered to a large extent with permanent snow fields and glaciers descending from them. Observations of mean temperature, however, on the higher ranges are extremely deficient, so that only a few generalizations can be given with regard to the position of the isothermals in that portion of the territory of the United States.

The isothermal of 41° follows a course in the Cordilleran region which embraces within a great loop to the south, the entire higher portion of the Rocky Mountains, as far south as parallel 34°. The tops of the Sierra Nevada, Blue Mountains, and Cascade Ranges are also included within the loop of the 41°. The Central portion of the Cascade Range, and the Rocky Mountains in the southwestern corner of Colorado, have a mean annual temperature of 40°. The highest part of the Rocky Mountains is indicated as having a mean temperature of less than 36°. Accurate and long continued observations in this region would, however, furnish an extremely complicated system of isothermal curves, since the ranges are numerous, and many of them high.

As the land assumes a more decidedly plateau character in Arizona, Utah and Nevada, the mean annual temperature rises in this portion of the country. In Nevada, the isothermal of 72° extends as far north as the parallel of 36°, and the isothermal of 52° reaches to the Trinity Mountains in parallel 40°. In this Cordilleran region, we find that a great change may be made in the latitude with but a very moderate one in the mean annual temperature, as shown by the parallelism of the isothermals with the coast line. The temperature is higher and more uniform along the Pacific coast than it is on the Atlantic coast of the United States. The isothermal of 60° runs nearly parallel with the coast, and not far from it from the 35th parallel nearly to the 38th. The isothermal of 52° follows the coast from San Francisco as far north as the parallel of 46°.

Summer isothermals

The isothermals for the summer months—June, July, and August—show greater irregularity on Mr. Schott's chart than those of the year. This holds true especially in the eastern region of the country. The summer isothermals all bend to the north in a very characteristic manner, owing in great measure to the southerly winds, which are heated by the Gulf of Mexico. The summer

isothermal of 80° bounds on the north an irregular area, including Florida, the southern part of Georgia, Alabama and Mississippi; Louisiana, the southeastern corner of Arkansas; the southeastern half of Texas; and a tongue of land in New Mexico. Within this area the mean summer temperature ranges from 80° to 88°. The southwestern half of Arizona, and patches in southern and central California have a like summer temperature of from 80° to 88°. A strip including the greater part of North and South Carolina, portions of Georgia, Alabama, Mississippi, Tennessee, Kentucky, Missouri, Arkansas, Kansas, the Indian Territory, Texas, New Mexico, Colorado, Utah, Arizona, and California, lies between the mean summer isothermals of 70° and 80°. The belt near the Ohio, extending north as far as the Great Lakes, and south along the Appalachian table-land into Tennessee, Mississippi, Alabama and Georgia, and west through Indiana, Illinois, Iowa, portions of Wisconsin, Minnesota, Dakota, and Montana, Nebraska, and northern Kansas, lies between the summer isothermals of 68° and 76°. On the Pacific coast the summer isothermals approach more nearly to the mean annual isothermals in their character and position than do those on the Atlantic coast of the United States. The region of the United States lying north of the States named above has a mean summer temperature ranging from 56° to 68°.

Winter isothermals.

The isothermals for the winter months—December, January and February—in the eastern region of the United States, are more regular than the summer curves, thus approaching in this respect the character of the mean annual isothermals. The winter isothermal of 52° coincides almost exactly with the mean annual isothermal of 68°. It runs parallel with, and at a little distance from, the Gulf of Mexico. The winter curve of 48° corresponds very closely with that of 64° for the year and the winter curve of 44° with the mean annual isothermal of 60°. The winter isothermal of 32° enters the United States at the southern end of Massachusetts, and passes in a southwesterly course across Long Island, just south of New York City, through New Jersey and across the northern end of Maryland, where it is deflected to the south, and makes a long loop around the Appalachians; then near the Ohio, through Indiana, Illinois, Missouri, and Kansas, into New Mexico, where at the meridian of 105°, it is deflected to the southwest and passes around the Rocky Mountains and through the center of the Great Basin. On the Pacific coast, the winter isothermals also closely coincides with the mean annual isothermals. For example, the winter isothermal of 52° corresponds in character and position with the annual curve of 60°.

Winds.

The peculiarities of the North-American climate which most strongly impress themselves on newly arrived visitors, and which are not so apparent in general statistical statements as they are in Nature, may be best set forth and discussed after the more essential facts regarding the other principal climatic elements have been presented.

And it would seem to be next in order to state the principal facts regarding the distribution of the winds in the United States, since a knowledge of these will be essential to an understanding of the important subject of the amount and distribution of the precipitation.

The prevailing winds of the United States, as of all countries lying in the middle latitudes, are westerly. At the 40th parallel as an average position, and on the mean annual isothermal of 50°, the evidences of this prevalence and constancy are overwhelming. Dr. Gibbons has noticed, with great care at San Francisco, the course of the higher strata of clouds—the cirrus, and the very high stratus—where they were visible, and has found them to come uniformly from some westerly point. During three years of very careful registry directed to this particular point in western New York, but three instances of a contrary direction were observed. During storms the lower clouds are from various points, and the wind is quite variable during the greater storms; two strata of different movement often lying beneath that from the west, yet the stratum from a westerly point usually deposits the rain, and when it ceases the rainfall ceases, though the lower strata may continue to run on the wind twenty-four hours, or even longer.

Below the 35th parallel and on the Gulf coast only, do the showers of summer take a different movement, showing that the stratum occupied by the cumulus of average height does not there move from the west, but from the east or southeast—an inflection of the trade-wind mingling with a local coast wind.

The following table, arranged from data furnished by the Signal Service Bureau, gives an idea of the direction of the wind in various parts of the country:

STATEMENT showing how many times the wind was observed blowing from the eight principal points of the compass during each season of the year, ending June 30, 1881. Compared from observations taken at the several stations of observations at 7 a. m., 2 p. m. and 9 p. m. local time).

Station.	Wind.	Spring.	Summer.	Autumn.	Winter.
Bismarck, Dak.	N.	58	32	33	42
	N. W.	56	51	70	75
	W.	24	27	34	15
	S. W.	18	12	17	16
	S.	16	31	22	17
	S. E.	36	60	37	38
	E.	32	34	15	36
	N. E.	25	17	18	13
	Calm.	11	9	27	21
	Blank.	0	0	0	0
Denver, Colo.	N.	35	50	46	26
	N. W.	36	42	37	35
	W.	55	15	6	28
	S. W.	54	14	12	30
	S.	61	60	111	93
	S. E.	33	34	26	13
	E.	55	29	12	15
	N. E.	23	28	26	23
	Calm.	1	4	3	0
	Blank.	0	0	0	0
Los Angeles, Cal.	N.	31	5	32	64
	N. W.	22	5	12	17
	W.	64	91	59	42
	S. W.	81	74	46	27
	S.	18	19	9	10
	S. E.	10	19	8	15
	E.	16	11	17	29
	N. E.	31	12	48	59
	Calm.	3	37	42	12
	Blank.	0	0	0	0
Saint Louis, Mo.	N.	47	36	44	31
	N. W.	27	16	31	44
	W.	25	17	25	30
	S. W.	9	37	15	18
	S.	90	96	93	91
	S. E.	39	33	33	27
	E.	26	19	11	14
	N. E.	13	20	22	15
	Calm.	0	2	0	3
	Blank.	0	0	0	0
New York, N. Y.	N.	14	13	14	18
	N. W.	69	50	72	54
	W.	36	33	38	46
	S. W.	45	71	60	43
	S.	17	37	18	16
	S. E.	36	23	27	13
	E.	17	11	16	13
	N. E.	36	35	25	53
	Calm.	6	3	3	17
	Blank.	0	0	0	0
Boston, Mass.	N.	19	24	7	19
	N. W.	45	28	43	62
	W.	48	58	77	58
	S. W.	62	58	50	55
	S.	25	18	33	12
	S. E.	33	22	22	14
	E.	20	37	19	15
	N. E.	13	26	10	11
	Calm.	11	17	12	27
	Blank.	0	0	0	0
Augusta, Ga.	N.	14	8	3	13
	N. W.	16	22	21	28
	W.	14	16	5	26
	S. W.	23	41	25	17
	S.	29	27	12	24
	S. E.	31	52	32	16
	E.	14	16	31	4
	N. E.	27	45	64	24
	Calm.	108	46	80	121
	Blank.	0	0	0	0
Chicago, Ill.	N.	18	21	21	17
	N. W.	24	6	35	31
	W.	29	29	37	61
	S. W.	69	72	63	69
	S.	42	39	59	37
	S. E.	41	26	19	20
	E.	24	24	13	15
	N. E.	26	39	14	16
	Calm.	2	20	12	16
	Blank.	1	0	0	0
Charleston, S. C.	N.	14	6	24	34
	N. W.	19	11	12	20
	W.	21	22	12	25
	S. W.	92	91	39	67
	S.	17	17	7	10
	S. E.	55	30	25	16
	E.	35	45	63	41
	N. E.	32	30	92	55
	Calm.	11	4	6	5
	Blank.	0	0	0	0
New Orleans, La.	N.	35	18	53	35
	N. W.	13	16	24	17
	W.	5	38	7	11
	S. W.	21	54	8	22
	S.	59	29	9	30
	S. E.	55	46	48	65
	E.	55	48	66	48
	N. E.	28	25	49	39
	Calm.	5	2	9	6
	Blank.	0	0	0	0

The winds along the whole extent of the Atlantic Coast region have a marked resemblance in their important features, notwithstanding the great difference in latitude. Westerly winds predominate during the entire year; but they are chiefly southwesterly in summer, and northwesterly in winter.

In the district between the Appalachians and the Mississippi, westerly and southwesterly winds are prevalent both in winter and summer. On the other hand, over a large territory in the southwestern portion of the United States, covering an area of about one third of the country, and including Nebraska, Kansas, eastern Wyoming and Colorado, Arkansas, Texas, Utah, New Mexico and Arizona, the summer winds are from the south, while the winds of winter are north and northwest. In northern Michigan, Wisconsin, and Minnesota, this reversal of the winter winds is less marked. In New Mexico and among the Rocky Mountains generally, the winds are of the most extremely irregular character. At the passes of the Sierra Nevada, and at all entrances from the coast of the Pacific to the interior, arid districts and deserts, there are violent and continuous westerly winds. On the coast of California, the inward draft of air produced by interior rarefaction is decidedly developed. Capt. Wilkes has designated this as the locality of the "Mexican Monsoon," blowing alternately up and down this coast, or northwest and southeast. The duration of the northern monsoon is from December to May; the currents of air are from the northwest, and nearly parallel with the coast. During its prevalence, fine weather is experienced. From May to September the currents of air are from the south and southwest. These are the stormy months, attended with great explosions of electricity, and with copious and constant precipitation. This interior rarefaction, above mentioned, is sufficient to bring a northwest wind on the coast from the 42nd to the 35th parallel, and a south or southwest wind for a long distance below the entrance to the Gulf of California—lines which, if projected to the interior, would cross nearly at right angles over the central areas of the dry interior. On the other side of the continent the southeast monsoon of Texas blows directly toward the northwest wind of California—all proving how great and important this agency of interior rarefaction is in producing the surface winds of the latitudes below the well-determined belt of westerly winds.

To sum up what has been said in regard to the winds of the United States, the following may be added:

1. The influence of the trades is but very slightly felt in the extreme southeasterly portion of the country.

2. The prevailing winds elsewhere are, in general, westerly.

3. On the Atlantic coast, east of the Appalachians, northwesterly winds prevail in winter; southwesterly in summer.

4. In the region between the Mississippi and the Appalachians, southwest and west winds prevail both in winter and summer.

5. Over a wide area, extending from southeastern California to Missouri, and along the base of the Rocky Mountains from New Mexico to southern Dakota, the winds of summer are nearly the reverse of those of winter, being south, southeasterly or southwesterly, with a great predominance of southerly; but north and northwest in winter.

6. On the Pacific coast, the prevailing and normal westerly direction is maintained through the year, intensified in summer by the superadded monsoon influence of the heated plateau region to the east.

7. Through the Plateau or interior Cordilleran region, the surface winds are variable and irregular in character, but the higher currents are in the normal westerly direction.

8. The region of the Lower Colorado is one in which southerly winds greatly predominate in summer, but where in winter there is not so complete a reversal of the summer wind as there is in the area specified under 5.

Rainfall.

The prosperity of a country depends largely upon its rainfall, as, to a very great extent, the primary industry, that upon which all others depend directly, viz., agriculture, may be said to flourish in a degree directly proportioned to the amount of moisture. Of rainfall, this country receives in its different parts a very different supply. Throughout the eastern half of the United States, the rainfall is ample for all purposes of agriculture, while in the western half, with the exception of a narrow strip along the Pacific coast, the supply is very deficient. With the exception of the Cordilleran region, the rainfall is nearly all derived from the Gulf of Mexico and the Atlantic ocean. Of the two, the principal source is the Gulf. The warm, moist currents which accompany the Gulf Stream from the Caribbean sea are not deflected toward the eastward in the Gulf of Mexico, as the great oceanic river is, but pass northward and eastward over the land in a broad belt extending from the coast of Texas to the peninsula of Florida. Judging from its effects in the form of rainfall, the central portion of this current passes over eastern Louisiana and Mississippi and western Alabama. The natural result of leaving the warm ocean surface and entering the continent is to cool these air currents, and make them deposit their vapor. The heaviest deposit is along the northern shore of the Gulf, in the States of Louisiana, Mississippi, and Alabama, and the western part of Florida, where the rainfall reaches 60 inches per annum. Were there no mountains or other irregular topographical features to modify the rainfall, this wave would move inland in a northeasterly direction, the precipitation decreasing eastward, northward, and westward, the lines of equal rainfall taking the form of great concentric ellipses. This form we see roughly outlined in the western part of the Mississippi valley, the rainfall decreasing regularly to the northward and westward. To the northeastward, however, these moisture-laden currents encounter the southern end of the Appalachian chain, and are driven at once up to high altitudes, where they are forced to disgorge their vapor, giving to this end of the mountain system a heavy rainfall; while farther along the chain, toward the northeast, the rainfall diminishes, becoming even less than that of the lower country on the east and west. The portion of the moisture-laden current which passes to the eastward of the Appalachian chain meets and mingles with moist air currents coming directly from the Atlantic, and produces, in the central parts of North and South Carolina, an area of abnormally heavy rainfall. A second source of moisture is the Atlantic ocean. Here the moist air currents from the Gulf Stream produce a belt of heavy rainfall along the Atlantic coast, reaching from Florida to the neighborhood of the bay of New York. This strip is quite narrow, being confined to the coast and its immediate neighborhood. Back of that, and over the greater portion of the Atlantic plain, the precipitation is notably less. The conditions of the coast as regards rainfall are somewhat changed north of the latitude last mentioned; that is, near the bay of New York. The Gulf Stream, which has been gradually trending off shore, is here at a considerable distance from the coast. Between the coast and the Gulf Stream has appeared a polar current flowing southwesterly. The contact between the warm air currents of the Gulf Stream and the cold winds accompanying this polar current undoubtedly causes the heavy fogs which prevail on the banks of Newfoundland and St. George's Banks, extending, in a greater or less degree, to the New England coast. Although there is a decrease in the rainfall of this part of the coast from that farther south, yet it is not particularly marked. The precipitation is, however, greatest on the coast, and decreases inland.

Leaving now the eastern half of the country, let us trace the rainfall westward. The lines indicating a smaller degree of rainfall succeed one another at intervals more or less regular as we go west, out of the course of the great continental wave of moisture, and up the slope of the plains. The country here is uniform and generally level, and there is nothing to interrupt the regular decrease in the amount of precipitation until we reach the base of the Rocky Mountains. From this line westward to the Sierra Nevada, we find the conditions of rainfall which are incident to a mountain country accompanied by a dry atmosphere. Taking the Cordilleran region as a whole, with the exception of that part lying west of the Sierra Nevada and Cascades, the rainfall probably does not average more than 10 or 15 inches annually. This, however, is not deposited uniformly over the country; there are certain conditions under which the rainfall in some parts of this region is much greater than in others. Other things being equal, the higher the latitude and the greater the altitude, the greater will be the rainfall. Under this rule the more northern parts of the Cordilleran region enjoy a greater rainfall than the southern parts. The mountains and high plateaus are better watered than the low lands. The best watered parts of this region are the northern parts of Washington and Idaho, the western part of Montana, northwestern Wyoming, which includes the elevated region known as the Yellowstone National Park, and the high plateaus and ranges of central Colorado. The most arid portions, and those which receive the least rainfall, are western Arizona, southern Nevada, and southeastern California. Although throughout this region we have but few and scattered observations of rainfall, the relative amount can be predicted with a considerable degree of certainty by the character of the vegetation. Everywhere arborescent vegetation implies a considerable amount of rainfall, and accordingly we find the higher plateaus, the mountains, and the regions in the higher latitudes covered with forests. A second zone of rainfall is indicated by the bunch and gama grasses which cover the plains and most of the mountain valleys. They indicate a rainfall not in general sufficient for the needs of agriculture. A third zone is indicated by *Artemisia*, or "sage brush," as this characteristic western shrub is popularly called; while a fourth zone is indicated by the cactus, the yucca, or by an absence of all vegetation whatever.

As has been suggested heretofore, the rainfall in the Cordilleran region east of the Sierra Nevada is in general insufficient for the needs of agriculture, excepting in a few isolated areas where local topography induces a rainfall greater than the normal one. In that section, irrigation is everywhere necessary for the production of cereal crops. Generally it may be stated that a less annual rainfall than 20 inches, or a less rainfall than 12½ inches during the growing season of crops—that is, during the spring and summer—is insufficient for their successful cultivation; and where this supply is not furnished naturally, an equivalent must be supplied by means of irrigation. This limit is reached along a line running approximately on a meridian, and passing through the middle of Dakota, western Nebraska, western Kansas, and central Texas. In the neighborhood of this line, and extending perhaps a degree on each side of it, is a debatable ground, where, in some seasons, the rainfall is sufficient for all crops, while in others it is insufficient. This is Powell's subhumid region. As a rule, wherever irrigation is necessary, the possible extent of agriculture, and in consequence the possible density of settlement, are dependent upon the amount of water carried in the streams. In most parts of the Cordilleran region, there is apparently a far greater amount of land suitable for cultivation than can ever be irrigated, even under the most economical distribution of water. Concerning this point, however, we are at present much in the dark, the capacity of few streams having been measured, even approximately. Under the wasteful system of irrigation at present practiced throughout the West (except in some portions of southern California), the limit of settlement will very soon be reached, so far as the population is dependent upon agriculture.

A question which has assumed practical importance of an almost national character is the effect of the planting of trees and the cultivation of the soil upon climate, many high authorities maintaining that these causes produce an increase in rainfall, and consequently that it is possible to redeem the whole Cordilleran region by a judicious system of cultivation and tree planting, particularly of the latter. It is doubtful whether that effect can be produced by this or by any other means within the power of man.

Such facts as we have within the form of rainfall records in the Cordilleran region do not substantiate the theory, the records showing that the rainfall has not increased in the regions covered by our border settlements since their earliest formation. At the same time, it seems highly probable that a change has been produced, which, while not affecting the climate, has modified decidedly the conditions of moisture. The effects of cultivation upon the soil in covering it with vegetation, and especially with trees, has in general been to retain the moisture upon and in the soil, instead of allowing it to run directly off into the streams, or to be taken up at once by evaporation. In other words, a much larger proportion of the rainfall is rendered effective for agricultural purposes. This effect is already very marked throughout Dakota, Kansas, and Nebraska, and even to some extent in Utah and Colorado.

It remains to sketch the rainfall of the Pacific coast. It is in all respects peculiar, and different from that of the rest of the country. There along the whole coast, and extending eastward as far as the Sierra Nevada and the Cascade range, well-defined wet and dry seasons—the former corresponding to the eastern winter, the latter to the eastern summer. Taking the year through, the rainfall is very much heavier in the northern part of this section than in the southern. In western Washington Territory, it rains almost constantly for six months of the year, while even in the wet season, the supply of rain in southern California is scanty.

An explanation of this peculiar climate is to be found in the ocean currents and the prevailing winds. The winds on the western coast are, as a rule, the "anti-trades," blowing from the west and southwest. These winds pass, on nearing the coast, over the great Japanese current, which north of Oregon, is relatively to the land, a warm current, while south of Oregon it is, relatively, a cool current. In passing over this portion of the sea, the atmosphere becomes surcharged with moisture. In reaching the coast the amount of precipitation from this moisture-laden atmosphere depends upon the change of temperature which it encounters. North of Oregon, the land being, as stated above, colder than the sea, there is great precipitation, while south of that state the land being the warmest, the precipitation decreases, till in southern California, where the difference between the sea and land temperature is the greatest, it is almost nothing. The line of demarkation between the different temperatures varies with the season, ranging northward in the summer and southward in the winter, thus giving the alternations between the wet and dry seasons so peculiar to this coast. The influence of the mountains of the Pacific coast, although not sufficient to account for all the phenomena of this climate, still plays a very important part in it. The ascent of the warm currents up the mountain sides of course cools them very greatly, and causes them to deposit whatever remaining moisture they may contain. To illustrate the extent of the action of mountain ranges, it may be stated that, although in the valley of the San Joaquin the rainfall is very light, yet upon the high Sierras it has been found to reach 90 inches in a single year.

The colder months in the United States, including May and September of the warmer months, precipitate most of the rain and snow, which falls in what are called general storms. Most of the rain falling before the middle of June in the latitude of Washington is in storms of two or three days' duration. A south or southeast wind, with high temperature and a palpable sense of preparation, usually begins the change; east and northeast winds follow next for a day or more, during which most of the rain falls, and west or northwest winds blow with unusual strength for two days following, restoring the equable and average weather for the month. In the Northern States, a greater number of months is included in those of general rains, which may occur in every month of summer, though they rarely do so. In the Gulf States the period of summer showers is more extended generally, though where the hurricanes of August and September occur, as they do in all the Southern States bordering the Gulf and the Atlantic, the number of extended rains in the summer is more nearly equal to that in New York and New England. In the southwest, at a distance from the coasts, they are rare from the close of April to the middle of October; in the interior farther west they are equally rare, and on the Pacific coast they belong only to the rainy months. But on the Pacific the rains have little, if any, correspondence at any season with those east of the Rocky Mountains.

Some general distinctions should be made at the outset of the examination of storms in the temperate latitudes. The hurricanes, typhoons and tornadoes, each of which more generally belong to the tropics, frequently enter these latitudes in their original forms, and subsequently become blended with the forms which originate here, either by encountering one of these, or by putting on such forms by a gradual process of change. The West India hurricanes impress their character on a series of successive or continuous storms along the Gulf Stream in nearly every case of their approach to temperate latitudes, and the tracks of these in the western Atlantic and along the coast present the most frequent instances of the mingling of storms which were originally wholly different, with the widely extended rains above the 35th parallel.

The general winter storms.

The observations with respect to the general winter storms of the United States may be stated as follows:

1. The general winter storms of the United States often cover an area of from three to five hundred miles in diameter, which area is usually oblong or oval, with its greatest length from southwest to northeast.

2. They all move eastward with the westerly winds of the belt where they are formed, and in a line with the isothermals of the month in which they occur—coming from a point north of west at the Mississippi river, and leaving the Atlantic coast in a direction north of east. This course conforms in both cases to the course of the isothermals; or, in other words, they do not leave the measure of heat where they originate to go into colder or warmer climates.

3. Their movement is generally at the rate of movement of the air in these latitudes, or nearly twenty miles per hour; but it may be much greater, or very little.

4. They may be initiated at all points of this belt, and at any meridian, and they have equally no point at which they are more likely to become exhausted and to disappear than any other.

5. They are more violent at the Atlantic coast and at the Gulf Stream than elsewhere, because the contrast of land and sea air is there very great in the colder seasons, and because the direct line of their progress carries them into a belt of high temperature. When the contrast is not great, as in the warmer months, there is no decided increase of severity there.

6. They are more generally attended by northeast winds than any others during the first half; or, in other words, the rarefied area almost always induces a draft from that quarter first, and it continues over most of the district in which a draft contrary to the general movement is created. Northeast winds.

7. None of the winds from other than westerly points are winds of propulsion, or propagated from their apparent point of origin; they are all, including a portion from the west, winds of aspiration, induced by the agitation, or by the disturbance of equilibrium itself.

8. All the movements and processes are usually carried past the mean by the forces set in motion in these storms; the minimum of heat, moisture, clouds and winds, following the removal of the excess of the first two; and this minimum, though a calm and quiescent state, is itself an extreme and not an average condition in these latitudes.

Tornadoes have less connection with general storms than hurricanes, though they often exist as the nucleus of a general rain inland, and, though belonging to the summer mainly, they are sometimes found in storms of mid-winter. The term *tornado* is one properly limited to local storms of excessive violence, afflicting but a narrow strip of surface a few miles in length, and usually while no storms of consequence exists anywhere in the vicinity, but sometimes as the nucleus of an extended rain. The leading characteristic is intense electrical action, and several lines or threads of tornado force are sometimes developed in a wide stratum of air of high temperature with clouds and rain, particularly if in a cool month, or when the general storm is of much more than the usual excess of temperature. These may be exhausted after traversing a short path, and may reappear, without disturbing the general condition and without producing any conformity to their peculiar violence in the whole area covered by the rain, as the hurricanes of the Atlantic do.

Hurricanes.

These hurricanes evidently control the movements of any storm or condition with which they come in contact, superadding to it the characteristics of hurricane violence, until this violence becomes exhausted by distance, while tornadoes have no general influence whatever. The following extract is taken from the report on tornadoes for 1880, by Mr. John P. Finley:

"A map prepared to show the entire topography of that portion of the United States included within the meridians of 89° and 101° would plainly illustrate an important truth in the tornado problem—viz., that there is not another section of our vast domain wherein there exists opportunities so unlimited for the unobstructed mingling and opposition of warm and cold currents and currents highly contrasted in humidity. As an area of low barometer (not necessarily a storm area) advances to the Lower Missouri valley warm and cold currents set in toward it from the north and south respectively, which, if the low pressure continues about stationary for some time, ultimately emanate from the warm and moist regions of the Gulf and the cold and comparatively dry regions of the British Possessions. Here lies the key to the marked contrasts of temperature and moisture, invariably foretelling an atmospheric disturbance of unusual violence, for which this region is peculiarly fitted by Nature, and in apparent recognition of which it has received the euphonious title of the "battle-ground of tornadoes." It cannot be disputed that, so far as the history of tornadoes is concerned, the majority have occurred over this region, because of its peculiar topography. From the Gulf northward to the central portion of the Lower Missouri valley, and from the British Possessions southward to the same locality, there is permitted an entirely free movement of the air; nothing in the shape of earth or water exists to modify its character, except, perhaps, to intensify the contrast of attributes. Over Texas, Louisiana, Arkansas, and Indian Territory occurs a broad expanse of rolling surface—sometimes abruptly hilly, but on the whole presenting a sameness of outline to a marked degree. Similarly conditioned are the States of Minnesota, Iowa, Nebraska, and the eastern half of Dakota Territory. West of the 101st meridian we find a rugged and abrupt country, traversed by great mountain chains, which deflect the course and modify the temperature and moisture of passing currents. On the east side of the 89th meridian, the Great Lakes introduce an equally important factor into the modification of passing currents."

As to the duration of the tornadoes observed in the year 1879, he writes:

"The time of passing any point was variously estimated from five seconds to two minutes. "Quicker than thought," was an expression often used as conveying the observer's idea of the rapidity of destruction. Estimating the average diameter of the cloud at 150 feet, and its average velocity at a mile in two minutes, we have its mean duration at any one point, about ten and a half seconds. There were times in the passage of the cloud when it appeared to remain almost stationary, whirling upon its narrow base like a top; again it was reported as moving no faster than a horse gently galloping, but only for half a mile or so, when it would make up for lost time by dashing forward at a rate of 50 or 60 miles per hour, and then gradually working down to its accustomed velocity of about 30 miles per hour."

Storms of March, 1888.

The storm of March 11-14, 1888, deserves a notice in this connection for, although not a tornado, it caused much suffering. Its most interesting feature was the extraordinary amount of snow which fell; and as this fell took place in the most densely settled part of the country, and caused a complete stoppage for several days of all intercourse between New York and the adjacent cities, it was, probably, of all the storms which have occurred since this country was settled—the one which gave rise to the largest amount of comment. The average snow fall in central Connecticut and over a large part of eastern New York exceeded forty inches, and in places this was piled up in drifts of from fifteen to forty feet in height. The maximum precipitation reported (5.78 inches) was at Middletown, Conn. This remarkable storm was the result of a conflict between a cyclone advancing from the south, but deflected to the west on reaching New England, and a cold wave coming from the west.*

THE FORESTS OF NORTH AMERICA.

General Remarks.

The North American continent, or that part of it situated north of Mexico, which will alone be considered here, may be conveniently divided with reference to its forest geography, into the Atlantic and Pacific regions, by a line following the eastern base of the Rocky Mountains and its outlying eastern ranges from the Arctic circle to the Rio Grande. The forests which cover these two divisions of the continent differ as widely, in natural features, composition, and distribution as the climate and topography of eastern America differ from the climate and topography of the Pacific slope. The causes which have produced the dissimilar composition of these two forests may be sought in the climatic conditions of a geological era earlier than our own and in the actual topographical formation of the continent; they need not be discussed here.

The forests of the Atlantic and Pacific regions, dissimilar in composition in the central part of the continent, are united at the north by a broad belt of subarctic forests, extending across the continent north of the fiftieth degree of latitude. One-half of the species of which this northern forest is composed extends from the Atlantic to the Pacific; and its general features, although differing east and west of the continental divide, in conformity with the climatic conditions peculiar to the Atlantic and the Pacific sides of the continent, still possess considerable uniformity. The forests of the Atlantic and the Pacific regions are also united at the south by a narrow strip of the flora peculiar to the plateau of northern Mexico, here extending northward into the United States. Certain characteristics species of this flora extend from the Gulf of Mexico to the shores of the Pacific, and while the peculiar features of the eastern and the western slopes of the interior mountain system of the continent are still maintained here, the Atlantic and Pacific regions of the Mexican forest belt possess many general features in common. Typical North American species, moreover, peculiar to the forest of the Atlantic or of the Pacific, mingle upon the Black hills of Dakota, and upon the Guadalupe and other mountains of western Texas, the extreme eastern ridges of the Rocky Mountain range, and the outposts between the Atlantic and the Pacific regions.

The Atlantic region.

The forests of the Atlantic Region may be considered under six natural divisions: the Northern Forest, the Northern Pine Belt, the Southern Maritime Pine Belt, the Deciduous Forest of the Mississippi Basin, and the Atlantic Plain, the Semi-tropical Forest of Florida, and the Mexican Forest of Southern Texas.

These natural divisions, although composed in part of species found in other divisions and possessing many general features in common, are still for the most part well characterized by predominant species or groups of species, making such a separation natural and convenient.

The *Northern Forest* stretches along the northern shores of Labrador nearly to the sixtieth degree of north latitude, sweeps to the south of Hudson bay, and then northwestward to within the Arctic circle. This Northern Forest extends southward to the fiftieth degree of north latitude on the Atlantic coast, and nearly to the fifty-fourth degree at the 100th meridian. It occupies 10 degrees of latitude upon the Atlantic sea-board and nearly 20 degrees in its greatest extension north and south along the eastern base of the Rocky Mountains. The region occupied by this Northern Forest, except toward its southwestern limits, enjoys a copious rainfall: it is divided by innumerable streams and lakes, and abounds in swampy areas often of great extent. The nature of the surface and the low annual mean temperature check the spread of forest growth, and reduce the number of arborescent species, of which this forest is composed, to eight. Of these, four cross to the Pacific coast, while the remainder, with a single exception, are placed west of the continental divide by closely allied forms of the Pacific forest. The white and the black spruces are characteristic trees of this region; they form an open, stunted forest upon the low divides of the water sheds, and reach a higher latitude than any other arborescent species of the continent; the valleys and wide bottoms are clothed with broad sheets of poplars, dwarf birches and willows. The forest of this entire region is scattered, open, stunted, and of no great economic value. It embraces, south of the sixtieth degree of north latitude, the northern extension of the great midcontinental plateau, which will be considered hereafter.

Northern Pine Belt.

South of the Northern Forest the *Northern Pine Belt* extends from the Atlantic coast to the ninety sixth meridian of longitude; east of the Appalachian Mountain system it extends south over nearly 6 degrees of latitude, with a long, narrow spur following the higher Alleghany ridges for nearly 3 degrees further south; west of the Alleghany Mountains, in the region of the great lakes, the pine forest is replaced south of the forty third degree of latitude by the deciduous growth of the Mississippi basin. The second division of the Atlantic forest may be characterized by the white pine (*Pinus Strobus*), its most important if not its most generally distributed species. East of the Appalachian system this tree often forms extensive forests upon the gravelly drift plain of the St. Lawrence basin, or farther south and west appears in isolated groves, often of considerable extent, scattered through the deciduous forest. Forests of black spruce are still an important feature of this region, especially at the north, and within its boundaries the hemlock, the yellow cedar, the basswood, the black and the white ash, the sugar maple and several species of birch and elm find their northern limits, and the center of their most important distribution. The hickories and the oaks, characteristic features of the deciduous forests of all the central portion of the Atlantic region, reach here the northern limits of their distribution, as do the chestnut, the tulip tree, the magnolia (here represented by a single species) the red cedar, the tupelo, the sycamore, the beech, and other important genera.

Southern pine belt

The *Southern Maritime Pine Belt* extends from the thirty-sixth degree of north latitude along the coast in a narrow belt, varying from one hundred to two hundred miles in width, as far south as Cape Malabar and Tampa bay; it stretches across the Florida peninsula and along the coast of the Gulf of Mexico until the alluvial deposits of the Mississippi are encountered; it reappears west of that river in Louisiana, south and south of the Red river, and here gradually mingles with the deciduous forests of the Mississippi basin in Arkansas and eastern Texas. This belt is well characterized by the almost continuous growth, outside of the broad river bottoms and the immediate neighborhood of the coast, by the open forest of the long leaved pine (*P. palustris*). The live oak, the palmetto, and various species of pine characterize the coast forest of this region; through the river bottoms and along the borders of the shallow ponds, scattered through the pine forest, different gums, water oaks, hickories and ashes, attain noble dimensions. The southern cypress (*Taxodium*), although extending far beyond the limits of this natural division, here attains its greatest development and value, and, next to the long-leaved pine, may be considered the characteristic species of the maritime pine belt.

Deciduous forest.

The *Deciduous Forest of the Mississippi Basin and the Atlantic Plain* occupies, with two unimportant exceptions to be considered hereafter, the remainder of the Atlantic region. Through this deciduous forest, where peculiar geological features have favored the growth of *Coniferæ*, belts of pine, growing gregariously or mixed with oaks and other broad leaved trees, occur especially upon some portions of the Atlantic plain and toward the limits of the Southern Maritime Pine Belt, west of the Mississippi river. The characteristic features of the forest of this whole region are found, however, in the broad leaved species of which it is largely composed. Oaks, hickories, walnuts, magnolias, and ashes give variety and value to this forest; and here, with the exception of a few species peculiar to a more northern latitude, the deciduous trees of the Atlantic region attain their greatest development and value. Upon the slopes of the southern Alleghany mountains and in the valley of the lower Red river, regions of copious rainfall and rich soil, the deciduous forest of the continent attains unsurpassed variety and richness. Upon the Alleghany mountains northern and southern species are mingled, or are only separated by the altitude of these mountains; rhododendrons, laurels, and magnolias here attaining their maximum development, enliven the forests of northern pines and hemlocks which clothe the flanks of these mountains, or are scattered through forests of other broad-leaved species. The cherry, the tulip tree, and the chestnut here reach a size unknown in other parts of the country. The forest of the Red river valley is hardly less varied. The northern species which the elevation of the Alleghany mountains has carried south are wanting, but other species peculiar to the southern Atlantic and Gulf coasts are here mingled with plants of the southern deciduous forest. The seven species of *Carya* (the hickories) are nowhere else closely associated. A great variety of the most important oaks grow here side by side; here is the center of distribution of the North American hawthorns, which do not elsewhere attain such size and beauty. The osage orange is peculiar to this region; the red cedar, the most widely distributed of American *Coniferæ*, the southern and the yellow pine (*Pinus palustris* and *mitis*) here reach their best development. Just outside of this region, upon the "bluff" formation of the lower Mississippi valley and of western Louisiana, the stately southern magnolia, perhaps the most beautiful of the North American trees, and the beech, assume their greatest beauty, and give a peculiar charm to this southern forest.

The western third of the Atlantic region is subjected to very different climatic conditions from those prevailing in the eastern portion of the continent; it consists of an elevated plateau, which falls away from the eastern base of the Rocky Mountains, forming what is known as the Great Plains. This great interior region, on account of its remoteness from natural reservoirs of moisture, receives a meager and uncertain rainfall, sufficient to insure a growth of herbage, but not sufficient to support, outside the narrow bottoms of the infrequent streams, the scantiest forests. This treeless plateau extends north to the fifty second degree of north latitude; it follows southward the trend of the Rocky Mountains far into Mexico, extending eastward at the point of its greatest width, in about latitude 40° N., nearly to the ninety-seventh meridian. This whole region is generally destitute of forest. The narrow bottoms of the large streams are lined, however, with willows, poplars, elms, and hackberries—trees adapted to flourish under such unfavorable conditions. These diminish in size and number with the rainfall, and often disappear entirely from the banks of even the largest streams toward the western limits of the plateau, south of the forty fifth degree of latitude. North and east of these central treeless plains a belt of prairie extends from the sixtieth degree of north latitude to southern

* See Winslow Upton, in Am. Met. Jour., May, 1888.

Texas. The average width east and west of this prairie region, through much of its extent, is not far from 150 miles. Its eastern extension, between the fortieth and forty-fifth degrees of latitude, is much greater, however, here reaching the western shores of lake Michigan, and forming a great recess in the western line of the heavy forest of the Atlantic region with a depth of nearly 600 miles. The transition from the heavy forest of the eastern and central portions of the Atlantic region to the treeless plateau is gradual. The change occurs within the prairie regions. Here is the strip of debatable ground, where a continuous struggle between the forest and the plain takes place. There is here sufficient precipitation of moisture to cause, under normal conditions, a growth of open forest; but, so nicely balanced is the struggle, that any interference quickly turns the scale. Trees planted within this prairie belt thrive if protected from fire and the encroachment of the tough prairie sod, and so extend the forest line westward; if the forest which fringes the eastern edge of the prairie is destroyed, it does not soon regain possession of the soil, and the prairie is gradually pushed eastward.

Forest plain.

The eastern line of the plain, where arborescent vegetation is confined to the river bottoms, and which divides it from the prairie where trees grow naturally, to some extent, outside of the bottoms, and where they may be made to grow under favorable conditions everywhere, is determined by the rainfall enjoyed by this part of the continent. The extreme eastern point reached by this line is found, upon the fortieth degree of north latitude, near the northern boundary of the state of Kansas. North of the fortieth degree it gradually trends to the west, reaching the eastern base of the Rocky Mountains in about latitude 52°. This northwestern trend of the eastern plain line may be ascribed to the comparatively small evaporation which takes place during the shorter summer of the north, and to a slight local increase of spring and summer rainfall. South of the fortieth degree the plain line gradually trends to the southwest under the influence of the Gulf of Mexico, reaching its extreme western point in Texas upon the one hundredth meridian.

Other causes, however, than insufficient rainfall and a nicely balanced struggle between the forest and the plain have prevented the general growth of trees in the prairie region east of the ninety-fifth meridian. The rainfall of this region is sufficient to insure the growth of a heavy forest. The rain falling upon the prairies of Minnesota, Wisconsin, Iowa, Illinois, and Missouri equals in amount that enjoyed by the Michigan peninsula and the whole region south of lakes Ontario and Erie, while prairies exist within the region of the heaviest forest growth. It is not want of sufficient heat, or of sufficient or equally distributed moisture, which has checked the general spread of forest over these prairies. The soil of which the prairies are composed, as is shown by the fact that trees planted upon them grow with vigor and rapidity, is not unsuited to tree growth. It is not, perhaps, improbable that the forests of the Atlantic region once extended continuously as far west at least as the ninety-fifth meridian, although circumstantial evidence of such a theory does not exist; and the causes which first led to the destruction of the forests in this region, supposing that they ever existed, cannot, with the present knowledge of the subject, be even guessed at. It is, however, fair to assume that forests once existed in a region adapted, by climate, rainfall, and soil, to produce forests, and that their absence under such conditions must be traced to accidental causes. It is not difficult to understand that the forest once destroyed over such a vast area could not easily regain possession of the soil protected by an impenetrable covering of sod and subjected to the annual burnings which have occurred down to the present time; while the force of the wind, unchecked by any forest barrier, over such an area would, even without the aid of fires, have made the spread of forest growth slow and difficult. The assumption that these eastern prairies may have once been covered with forests is strengthened by the fact that since they have been devoted to agriculture, and the annual burning has been stopped, trees which were formerly confined to the river bottoms have gradually spread to the uplands. Small prairies situated just within the western edge of the forest have entirely disappeared within the memory of persons still living; the oak openings—open forests of large oaks through which the annual fires played without greatly injuring the full-grown trees—once the characteristic feature of these prairies, have disappeared. They are replaced by dense forests of oak, which only require protection from fire to spring into existence. In western Texas, the mesquit, forced by annual burning to grow almost entirely below the surface of the ground, is, now that prairie fires are less common and destructive, spreading over what a few years ago was treeless prairie. The prairies, then, or the eastern portions of them situated in the region of abundant rainfall, are fast losing their treeless character, and the forest protected from fire is gradually gaining in every direction; regions which fifty years ago were treeless outside the river bottoms now contain forests covering 10 or even 20 per cent. of their area. These eastern well-watered prairies must not, however, be confounded with their dry western rim adjoining the plains—the debatable ground between forest and plain—or with the plains themselves. There is now no gradual, constant spread of forest growth upon the plains. They are treeless on account of insufficient moisture to develop forest growth; and while trees may, perhaps, if planted, survive during a few years beyond the western limits of the prairie as here laid down, the permanent establishment of forests there does not seem practicable, and, sooner or later, a period of unusual drought must put and end to all attempts at forest cultivation in a region of such insufficient and uncertain rainfall.

It remains to consider the *Semi-tropical Forest of Florida* and the *Mexican Forest of Southern Texas*.

A group of arborescent species of West Indian origin occupies the narrow strip of coast and islands of southern Florida. This belt of semi-tropical vegetation is confined to the immediate neighborhood of the coast and to occasional hummocks or islands of high ground situated in the savannas which cover a great portion of southern Florida, checking, by the nature of the soil and want of drainage, the spread of forest growth across the peninsula. This semi-tropical forest belt reaches cape Malabar on the east and the shores of Tampa bay on the west coast, while some of its representatives extend fully 2 degrees farther north. It is rich in composition; nearly a quarter of all the arborescent species of the Atlantic forest are found within this insignificant region. The semi-tropical forest, in spite of its variety, is of little economic importance. The species of which it is composed here reached the extreme northern limit of their distribution; they are generally small, stunted, and of comparatively little value. Certain species, however, attain respectable proportions; the mahogany, the mastic, the royal palm, the mangrove, the sea-grape, the Jamaica dogwood, the manchineel, and other species here become considerable and important trees.

In western and southern Texas the trees of the Mississippi basin, checked by insufficient moisture from farther extension southward outside the river bottoms, are replaced by species of the plateau of northern Mexico. The streams flowing into the Gulf of Mexico are still lined, however, east of the one-hundredth meridian, with the species of the Atlantic basin, which thus reach southward to beyond the Rio Grande. The Mexican forest belt of Texas extends from the valley of the Colorado river, near the ninety-eighth meridian, to the Rio Grande. It touches the coast not far from the Nueces river, and extends to the eastern base of the mountain ranges west of the Pecos; here the species of which it is composed mingle with those peculiar to the Pacific-Mexican forest. The forest of this region, like that of all countries of insufficient moisture, is open, stunted, and comparatively of little value. It is characterized by enormous areas covered with chaparral (dense and often impenetrable thickets of thorny shrubs and small trees), by a stunted and occasional arborescent growth upon the hills and plains, and by fringes of heavier timber along the river bottoms. The most valuable and perhaps the most characteristic species of this whole region—the mesquit—extends to the Pacific coast. With this exception, none of the arborescent species peculiar to this region attain any considerable size or importance, although the forest of small junipers which cover the low lime stone hills of the Colorado valley are locally valuable in a country so generally destitute of trees. The region immediately adjoining the Rio Grande abounds in different species of *Acacia*, *Leucæna*, and other Mexican *Leguminosæ*; and farther west, upon the dry plains of the Presidio, the Spanish bayonet (*Yucca baccata*) covers wide areas with a low, open, and characteristic forest growth.

Pacific region.

The Pacific forest region is coextensive with the great Cordillera Mountain system of the continent. The causes which have influenced the present position and density of these forests must be sought in the peculiar distribution of the rainfall of the region. The precipitation of moisture upon the northwest coast is unequaled by that of any other part of the continent. It gradually decreases with the latitude until, in Southern California, the temperature of the land so far exceeds that of the ocean that precipitation is impossible through a large part of the year. The interior of all this great region, shut off by the high mountain ranges which face the ocean along its entire extent, is very imperfectly supplied with moisture. It is a region of light, uncertain, and unequally distributed rainfall, heavier at the north, as upon the coast, and decreasing gradually with the latitude in nearly the same proportion. This entire region is composed of a mass of mountain ranges with a general north and south trend, separating long and generally narrow valleys. The precipitation of moisture within the interior region is largely regulated by the position of the mountain chains. Warm currents ascending their sides become cold, and are forced to deposit the moisture they contain. It follows that, while the interior valleys are rainless or nearly so, the mountain ranges, and especially the high ones, receive during the year a considerable precipitation of both rain and snow. If the distribution of the forests of any region is dependent upon the distribution and amount of moisture it receives, forests exceeding in density those of any other part of the continent would be found upon the northwest coast; they would gradually diminish toward the south, and entirely disappear near the southern boundary of the United States; while the forests of all the interior region, from the summit of the principal Coast Ranges to the eastern base of the Rocky Mountains, would be confined to the flanks and summits of the mountains. These forests would be heavy upon the high ranges, especially toward the north; they would disappear entirely from the valleys and low mountain ranges. An examination of the forests of the Pacific region will show that, in general distribution and density, they actually follow the distribution of the rainfall of the region. These forests well illustrate the influence of moisture upon forest growth. Within the Pacific region, the heaviest and the lightest forests of the continent coexist with its heaviest and lightest rainfall.

The Pacific Forest.

The forests of the Pacific region may be considered under four divisions: the Northern Forest, the Coast Forest, the Interior Forest, and the Mexican Forest.

The *Northern Forest* of the Pacific region extends from nearly the seventieth to about the fifty-eighth degree of north latitude, or, immediately upon the coast, is replaced by the Coast Forest nearly 2 degrees farther north; it extends from the continental divide, here mingled with the Northern Forest of the Atlantic region, to the shores of the Pacific. The southern limit of this open, scanty Northern Forest, composed of species which extend across the continent, or of species closely allied to those of the Northern Forest of the Atlantic region, is still imperfectly known, especially in the interior. The determination of the southern

range in Alaska and British Columbia of several species, as well as the northern range here of a few others, must be still left to further exploration. The white spruce, the most important and the most northern species of the forest of the North Atlantic region, is here also the most important species. It attains a considerable size as far north as the sixty-fifth degree, forming, in the valley of the Yukon, forests of no little local importance. The canoe birch, the balsam poplar, and the aspen, familiar trees of the North Atlantic region, also occur here. The gray pine and the balsam fir of the Atlantic region are replaced by allied forms of the same genera. The larch alone, of the denizens of the extreme Northern Forest of the Atlantic coast, finds no congener here in the northern Pacific forest.

The Pacific *Coast Forest*, the heaviest, although far from the most varied, forest of the continent, extends south along the coast in a narrow strip from the sixtieth to the fiftieth parallel; here it widens, embracing the shores of Puget sound and extending eastward over the high mountain ranges north and south of the boundary of the United States. This interior development of the Coast Forest, following the abundant rainfall of the region, is carried northward over the Gold, Selkirk, and other interior ranges of British Columbia, in a narrow spur extending north nearly to the fifty-fourth parallel. It reaches southward along the Cascade, Bitter-Root, and the western ranges of the Rocky Mountain system to about latitude 47° 30′, covering northern Washington Territory, Idaho, and portions of western Montana.

The Coast Forest south of the fiftieth degree of latitude occupies the region between the ocean and the eastern slopes of the Cascade Range; in California the summits of the principal southern prolongation of these mountains, the Sierra Nevada, mark the eastern limits of the Coast Forest, which gradually disappears south of the thirty-fifth parallel, although still carried by the high ridges of the southern Coast Range nearly to the southern boundary of the United States. The Coast Forest, like the forests of the whole Pacific region, is largely composed of a few coniferous species, generally of wide distribution. The absence of broad-leaved trees in the Pacific region is striking; they nowhere form great forests, as in the Atlantic region; when they occur they are confined to the valleys of the coast and to the banks of mountain streams, and, economically, are of comparatively little value or importance. The characteristic and most valuable species of the northern Coast Forest are the Alaska cedar (*Chamæcyparis*), the tide-land spruce, and the hemlock. These form the principal forest growth which covers the ranges and islands of the coast between the sixty-first and fiftieth parallels. Other species of the Coast Forest reach here the northern limits of their distribution, although the center of their greatest development is found farther south.

The red fir. The red fir (*Pseudotsuga*), the most important and widely distributed timber tree of the Pacific region, reaches the coast archipelago in latitude 51°; farther inland it extends fully 4 degrees farther north, and in the region of Puget sound and through the Coast Forest of Washington Territory and Oregon it is the prevailing forest tree. The characteristic forest of the northwest coast, although represented by several species extending south as far as cape Mendocino, near the fortieth parallel, is replaced south of the Rogue River valley by a forest in which forms peculiar to the south rather than to the north gradually predominate. The forest of the northwest coast reaches its greatest density and variety in the narrow region between the summits of the Cascade Range and the ocean. North of the fifty-first parallel it gradually decreases in density, and south of the forty-third parallel it changes in composition and character. This belt of Coast Forest is only surpassed in density by that of some portions of the redwood forest of the California coast. The red fir, the great tide-land spruce, the hemlock, and the red cedar (*Thuya*) reach here enormous dimensions. The wide river bottoms are lined with a heavy growth of maple, cottonwood, ash, and alder, the narrow interior valley with an open growth of oak. In this great coniferous forest the trunks of trees two or three hundred feet in height are often only separated by the space of a few feet. The ground, shaded throughout the year by the impenetrable canopy of the forest, never becomes dry; it is densely covered by a thick carpet of mosses and ferns, often of enormous size. The more open portions of this forest are choked by an impenetrable growth of various *Vaccinea* of almost arborescent proportions, of hazel, the vine-maple, and other shrubs. The soil which has produced the maximum growth of forest in this region is, outside the river bottoms, a thin, porous gravel of glacial origin, rarely more than a few inches in depth; the luxuriance of vegetable growth, therefore, illustrates the influence of a heavy rainfall and temperate climate upon the forest.

The general character of this forest in the interior, although composed largely of the species peculiar to the coast, differs somewhat from the Coast Forest proper in composition and largely in natural features. The dense, impenetrable forest of the coast is replaced, east of the summit of the Cascade Range, by a more open growth, generally largely destitute of undergrowth. The red fir, the hemlock, and the red cedar (*Thuya*) are still important elements of the forest. Less valuable species of the Coast Forest —the white fir (*Abies grandis*), the yew, the alders, the mountain hemlock (*Tsuga Pattoniana*), the hawthorn, the buckthorn, and the white pine (*Pinus monticola*)—are still represented. The latter, a local species upon the coast, only reaches its greatest development toward the eastern limit of this region, here forming considerable and important forests. Other species peculiar to the Coast Forest, the maples, the ash, the oak, the arbutus, and the Alaska cedar, do not extend east of the Cascades. The tide-land spruce is replaced by an allied species of the interior region. The widely distributed yellow pine (*Pinus ponderosa*), barely represented in the northern portions of the immediate Coast Forest, becomes, east of the mountains, one of the most important and characteristic elements of the forest. The Coast Forest south of the forty-third degree of latitude changes in composition. The tide-land spruce, the hemlock, and the *Thuya* are gradually replaced by more southern species. The sugar pine (*P. Lambertiana*) here first appears. The California laurel (*Umbellularia*) covers with magnificent growth the broad river bottoms. The *Libocedrus*, several oaks, and the digger pine here reach the northern limits of their distribution. The change from the northern to the southern forest is marked by the appearance of the Port Orford cedar (*Chamæcyparis Lawsoniana*), adding variety and value to the forest of the southern Oregon coast. Farther south, near the northern boundary of California, the redwood forests (*Sequoia*) appear.

The Coast Forest of California will be most conveniently discussed under three subdivisions: the forest of the Coast Range, the forest of the western slope of the Sierra Nevada, which, toward the northern boundary of the state, extends to the coast, covering the mass of mountains which here unite the Sierra Nevada and the Coast Range; and, third, the open forest of the long, narrow valleys lying between the Coast Range and the Sierra Nevada south of this northern connection. The important feature of the Coast Range, as far south as the thirty-seventh degree of latitude, is the belt of redwood occupying an irregular, interrupted strip of territory facing the ocean, and hardly exceeding thirty miles in width at the points of its greatest development. The heaviest growth of the redwood forest occurs north of the bay of San Francisco; and here, along the slopes and bottoms of the narrow cañons of the western slope of the Coast Range, the maximum productive capacity of the forest is reached. No other forest of similar extent equals in the amount of material which they contain the groups of redwood scattered along the coast of northern California. The red fir reaches, in the California Coast Range, a size and value only surpassed in the more northern forests of the coast; the yellow pine is an important tree in the northern portions of this region, and here flourish other species of the genus endemic to this region. The forest of the Coast Range is marked by the presence within its limits of several species of singularly restricted distribution. *Cupressus macrocarpa* and *Pinus insignis* are confined to a few isolated groves up in the shores of the bay of Monterey; *Abies bracteata* occupies three or four cañons high up in the Santa Lucia mountains, it is found nowhere else; and *Pinus Torreyana*, the most local arborescent species of North America, has been detected only in one or two small groups upon the sand-dunes just north of the bay of San Diego. The characteristic forest of the Coast Range is checked from farther southern development a little below the thirty-fifth parallel by insufficient moisture; the scanty forests which clothe the high declivities of the Coast Range farther south belong in composition to the Sierra forests.

The heavy forest which covers the western slopes of the Sierra Nevada, a forest only surpassed in density by the redwood belt of the coast and the fir forest of Puget sound, occupies, in its greatest development, a belt situated between 4,000 and 8,000 feet elevation. This forest belt extends from about the base of mount Shasta at the north to the thirty-fifth parallel; farther south it diminishes in density and disappears upon the southern ridges of the Coast Range just north of the southern boundary of California. Its greatest width occurs in northern California, where to the south of mount Shasta, the Sierra system is broken down into a broad mass of low ridges and peaks. The characteristic species of this forest is the great sugar pine (*P. Lambertiana*), which here reaches its greatest development and value, and gives unsurpassed beauty to this mountain forest. With the sugar pine are associated the red fir, the yellow pine, two noble *Abies*, the *Libocedrus*, and, toward the central part of the state, the great *Sequoia*, appearing first in small isolated groups, and then, farther south, near the headwaters of Kern river, in a narrow belt extending more or less continuously for several miles. This heavy forest of the Sierras, unlike the forest which farther north covers the western flanks of the Cascade Range, is almost destitute of undergrowth and young trees. It shows the influence of a warm climate and unevenly distributed rainfall upon forest growth. The trees, often remote from one another, have attained an enormous size; but they have grown slowly. Above this belt the Sierra forest stretches upward to the limits of tree growth. It is here subalpine and alpine in character, and of little economic value. Different pines and furs, the mountain hemlock, and the western juniper are scattered in open stretches of forest upon the high ridges of the Sierras. The forest below the belt of heavy growth gradually becomes more open. Individual trees are smaller, while the number of species increases. The small pines of the upper foot hills are mingled with oaks in considerable variety. These gradually increase in number. Pines are less frequent, and finally disappear. The Sierra Nevada forests.

The forest of the valleys is composed of oaks, the individuals often widely scattered and of great size, but nowhere forming continuous, compact growth. The Coast Forest of the Pacific region, unsurpassed in density, is composed of a comparatively small number of species, often attaining enormous size. It presents the same general features throughout its entire extent, except as modified by the climatic conditions of the regions which it covers. The species which compose this forest range through nearly 26 degrees of latitude, or northern species, are replaced in the south by closely allied forms; and, as in the Atlantic region, the southern species far exceed in number those peculiar to the north. Valley forests.

The *Interior Forest* extends from the southern limits of the northern subarctic forest to the plateau of northern Mexico; it occupies the entire region between the eastern limits of the Pacific Coast Forest and the extreme western limits of the Atlantic region. The forests of this entire region, as compared with the

forests east and west of it, are stunted and remarkable in their poverty of composition. They are confined to the high slopes and canons of the numerous mountain ranges composing the interior region, while the valleys are treeless, or, outside of the narrow river bottoms, nearly treeless. The interior forest attains its greatest development and considerable importance upon the western slope of the California Sierras and upon the flanks of the high peaks of the southern Rocky Mountain system, from Colorado, where the timber line reaches an extreme elevation of 13,500 feet, to southern New Mexico and western Arizona. The minimum in North American forest development, outside the absolutely treeless regions, both in the number of species and in the proportion of forest to entire area, is found south of the Blue mountains of Oregon, in the arid region between the Wahsatch mountains and the Sierra Nevada, known as the Great Basin. Here the open, stunted forest is confined to the highest ridges and slopes of the infrequent canons of the low mountain ranges which occupy, with a general north and south trend, this entire region. The individuals which compose this forest are small, although often of immense age, and everywhere show the marks of a severe struggle for existence. Seven arborescent species only have been detected in the forests of the northern and central portions of this region. The mountain mahogany (*Cercocarpus*), the only broad-leaved species of the region, with the exception of the aspen, which throughout the entire interior region borders, above an elevation of 8,000 feet, all mountain streams, reaches here its greatest development. This tree, with the nut pine (*Pinus monophylla*), characterizes this region. Stunted junipers are scattered over the lowest slopes of the mountains, or farther south often cross the high valleys, and cover with open growth the *mesas*, as the lower foot-hills are locally known. An open forest of arborescent yuccas (*Yucca brevifolia*) upon the high Mojave plateau is a characteristic and peculiar feature of the flora of this interior region. The red fir and the yellow pine, widely distributed throughout the Pacific region, do not occur upon the mountain ranges of the Great Basin.

Forests of interior.

The heavy forests of the interior region, found along the western slopes of the California Sierras and upon the Rocky Mountain system, are, for the most part, situated south of the forty-second degree of latitude. The forests of the whole northern interior portion of the continent, outside the region occupied in the northern Rocky Mountains by the eastern development of the Coast Forest, feel the influence of insufficient moisture; the number of species of which they are composed is not large; the individuals are often small and stunted, while the forests are open, scattered, without undergrowth, and confined to the canons and high slopes of the mountains. The most generally distributed species of this northern region, a scrub pine, (*Pinus Murrayana*), occupies vast areas, almost to the exclusion of other species, and is gradually taking possession of ground cleared by fire of more valuable trees. South of the fifty-second parallel the red fir (*Pseudotsuga*) and the yellow pine (*Pinus ponderosa*) appear; with them is associated, in the Blue Mountains and in some of the ranges of the northern Rocky Mountains, the western larch (*Larix occidentalis*), the largest and most valuable tree of the Columbian basin.

The forest covering the eastern slope of the Sierra Nevada consists almost exclusively of various species of pine, often of great size and value. The characteristic species of this region are the yellow pine and the closely allied *Pinus Jeffreyi*, here reaching its greatest development. The red fir is absent from this forest, while the oaks, multiplied in many forms on the western slopes of these mountains, have here no representative.

The forests of the southern Rocky Mountain region, less heavy and less generally distributed than those of the western slope of the Sierras, are, as compared with those of the Great Basin, heavy, dense, and valuable. They owe their existence to the comparatively large precipitation of moisture distributed over this elevated region. The characteristic species of the Colorado mountains is a spruce (*Picea Engelmanni*); it forms, at between 8,000 and 10,000 feet elevation, extensive and valuable forests of considerable density and great beauty; with it are associated a balsam fir of wide northern distribution, and various alpine and subalpine species of pine; at lower elevations forests of yellow pine and red fir cover the mountain slopes, while the bottoms of the streams are lined with cottonwood, alder, and maple, or with an open growth of the white fir (*Abies concolor*), a species of the Coast Forest, here reaching the eastern limits of its distribution; the foot-hills above the treeless plain are covered with scant groves of the nut-pine (*Pinus edulis*), stunted junipers, and a small oak, which in many forms extends through a large area of the southern interior region. A forest similar in general features to that of Colorado, and largely composed of the same species, extends over the high mountains of New Mexico to those of western Texas and western and northwestern Arizona, where a heavier forest of pine covers the elevated region lying along the thirty-fifth parallel, culminating in the high forest-clad San Francisco mountains of northern Arizona.

The species of the interior Pacific region mingle along its southern borders with the species peculiar to the plateau of northern Mexico. The Pacific-Mexican Forest, although differing widely in natural features from the Atlantic-Mexican Forest, possesses several species peculiar to the two. The forests of this region are confined to the high mountains and their foot-hills, and to the banks of the rare water-courses. They disappear entirely from the Colorado desert and from the valleys and low mountain ranges of southwestern Arizona. The most important and generally distributed species peculiar to the valleys of this region is the mesquit, the characteristic species of the Atlantic-Mexican region. The suwarrow, however, the great tree cactus, is perhaps the most remarkable species of the region, giving an unusual and striking appearance to the dry *mesas* of central and southern Arizona.

The high mountain ranges, extending across the boundary of the United States, between the one hundred and fifth and the one hundred and eleventh meridians, enjoy a larger and more regularly distributed rainfall than the regions east, and especially west, of these meridians. The forests which cover these southern mountain ranges are often dense and varied. Upon their summits and almost inaccessible upper slopes the firs and pines of the Pacific region are mingled with pines, a juniper, an arbutus, and various other species peculiar to the Mexican plateau. Extensive forests of a cypress of Mexican origin also characterize this mountain vegetation. The bottoms of the canons are lined with a dense growth of cottonwood, hackberry, a noble sycamore, an ash, a cherry, and other deciduous trees. The high foot-hills and *mesas* are covered with open groves of various oaks peculiar to the Mexican-Pacific region, here reaching, within the United States at least, their greatest development.

Such are some of the prominent forest features of North America; a dense forest, largely composed, except at the north, of a great variety of broad-leaved species, and extending from the Atlantic sea-board in one nearly unbroken sheet until checked by insufficient moisture from further western development—the forest of the Atlantic region; a forest of conifers, occupying the ranges of the great Cordilleran mountain system, unsurpassed in density in the humid climate of the coast, open and stunted in the arid interior—the forest of the Pacific region.

A more detailed examination of the distribution of North American arborescent genera and species will serve to illustrate the wealth of the forests of the Atlantic and the comparative poverty of those of the Pacific region. It will show, too, more clearly how widely the forests of these two great regions differ in composition.

The economical importance of the forests of the United States is very great, but can hardly be expressed by figures. Some facts, however, may be stated in this connection. The wood from the forest is used in the main for fuel. Although coal exists in abundance over certain regions, and although there are parts of the thickly settled regions where forests are scanty, there is no district where some wood is not used as fuel. In the cities of the East—even those which are in the immediate vicinity of coal—a good deal of wood is necessarily consumed in the form of kindlings,—an important item where anthracite is the coal supplied; and, moreover, open fires are extensively used by the wealthier class, in conjunction with coal in furnaces. In other regions where coal is abundant, forests are also abundant, and as these must be cut down to be sawn into lumber, or to clear the land for cultivation, there is a large supply of wood available as fuel, but not fit to be used for building or manufacturing. Except in the large cities, and occasionally in the towns of second and third rank, wood is used almost exclusively for the building of houses and barns in the United States. Fences also consume a very large amount of wood, this material being in common use for this purpose wherever timber is abundant, and often where it is not, as in the prairie States, where, however, within a few years, wire has begun to be very extensively used for fences. There is also a very large consumption of wood for furniture and for those portions of various implements, especially agricultural, which are made of this material. An even larger supply of wood is required for the boxes and barrels in which various articles of merchandise are transported. The consumption of wood in the form of barrels, as required by the two articles flour and salt, is very large.

The economical importance of the forests of the United States

The great demand for cheap wooden ware, and the extensive use of wood in building houses, and for various portions of the finishing and fittings of houses and barns, has led to the invention of very ingenious machinery by the aid of which wood is wrought into almost every variety of forms with very little direct help from human hands. This makes the coarser kinds of furniture and of household implements exceedingly cheap. As an example, it may be mentioned that barrels strong enough to hold in transportation two hundred and eighty pounds of salt are made in Michigan for so small a sum as twenty cents.

Cheap wooden ware.

The building of log houses—that is, of such dwellings as are made by piling trunks of trees on each other, either in their natural shape, or partly squared with the axe—is almost a thing of the past, although once extremely common. Very few districts in the region of abundant forests are so far away from saw-mills and railroads as to make a log house the most economical form of dwelling. Occasionally some large, substantial and well-finished buildings are erected "log-house fashion," either as a matter of fancy, or to attract attention by an exterior of exceptional appearance.

Log houses.

Some idea of the importance of the forests from an economical point of view can be gained from the following figures given by the census of 1880, in reference to the manufacture of sawn lumber:—

Number of establishments	25,708
Capital invested	$181,186,122
Average number of hands employed	147,956
Feet of lumber produced	18,091,356,000
Number of laths	1,761,788,000
Number of shingles	5,555,046,000
Number of staves	1,248,226,000
Number sets headings	146,523,000
Feet of bobbin and spool stock	34,076,000
Total value of the above specified products	$230,685,061
Value of other products	2,682,668
Total value	$233,367,729

Value of wood.

The consumption of wood "for domestic purposes"—that is, as fuel in houses—is given by the census of 1880 as amounting to 140,537,439 cords, having an estimated value of $306,950,040.

The total consumption of wood as fuel is given as follows:—

	Cords.	Value.
For domestic fuel	140,537,439	$306,950,040
By railroads	1,971,813	5,126,714
By steamboats	787,862	1,812,083
In mining and smelting	6,4,845	3,548,285
In making bricks and tiles	1,157,552	3,978,831
In making salt	510,418	121,681
In woollen manufacture	108,208	425,239
Total	145,778,137	$321,962,373

The total value of the wood used as lumber and as fuel amounts, therefore, to no less than $555,3.0,102, if the figures given by the census of 1880 are to be trusted. The value of the wood consumed as fuel in the United States was more than three times as great as that of the coal mined. In fact, the timber of the country is the greatest of all its material possessions. The coal, once exhausted, can never be restored, not even with the lapse of an indefinite amount of time, for the conditions favorable to the production of coal on the earth have entirely ceased to exist. The timber, on the other hand, is restored, after destruction by man, by the kindly hand of Nature. This is the case, at least, over the whole of the once densely timbered portion of the country, where the various growths succeeding each other after the primal forest has been removed offer a satisfactory substitute for that which has been made use of, either naturally or as an easily attainable result of cultivation. In regions where the rainfall is of insufficient amount, there appears to be a tendency in Nature to replace the original growth by one of inferior quality. Whether this inferiority would be lasting or not, seems a doubtful matter. That there has been a diminution of the precipitation, certainly dating back to the Tertiary age, and, in all probability, to a much earlier time, is a geological fact established beyond all possible doubt. That this diminution has anything to do with the removal of the forests by the hand of man, or that man can to any perceptible extent influence the general climate of the country, there is not the slightest reason for believing.

SCENOGRAPHICAL.

The great extent of the territory occupied by the United States is a sufficient reason why there should be a corresponding variety in the scenery. In the early history of the county, when only the Atlantic coast and the eastern side of the Appalachian belt were known to travelers, the landscape was generally considered monotonous by those who visited this region as tourists, or with a view to the enjoyment and description of its scenery. This impression of uniformity and monotony was further confirmed, as the Mississippi Valley and the region of the Great Lakes were added to the tourist's range. Many persons visited the prairies of Illinois and the adjacent States for the purpose of getting an idea of a vast expanse of almost unbroken country such as could hardly be obtained elsewhere in the Northern Hemisphere without visiting Southeastern Russia and the country east of the Urals. The general resemblance of the Appalachian Mountain scenery to that of parts of Northern and Central Europe—as, for instance, that of the White Mountains to that of the Erzebirge, or that of Northern New England to that of Scandinavia—could hardly escape notice, similarity of topographical features being supplemented in many cases by the absence of any specially marked differences in the floras of the regions in question. Thus the writer, having spent a summer in a geological exploration of New Hampshire, found himself after a very short interval of time traveling through Southern Sweden. The impression of the scenic similarity of the two regions was extremely interesting. Not only were the rocks, rock-forms and topographical features the same, but the vegetation—although of course not identical so far as the species were concerned—made, from the scenic point of view, almost exactly the same impression on the eye in the Scandinavian country that it did over large portions of New England.

In those early days of travel, especially of English travel, to the United States, the dominating idea was to see Niagara Falls, which was the great point of attraction. Occasionally an adventurous traveler went farther West and down the Mississippi; but for ninety-nine out of a hundred tourists who visited this country and described its scenery, Niagara was the Ultima Thule. The opening of the "Farthest West" by roads and railroads, the scientific exploration of the Cordilleran region, the development of its mineral resources, and the rapidly growing desire on the part of many to see as much of the world as possible—all this has very greatly enlarged the range of experience in the enjoyment of scenery, while the art of photography has rendered it possible for those not caring to travel, to understand and enjoy the scenic features of distant countries, and to compare understandingly the landscapes of regions widely separated from each other.

Farthest West.

To attempt to describe the principal features of the scenery of a country having an area of more than three million square miles, is, of course, something not to be thought of in the present connection. All that can be done is to indicate some of the points most visited, and most worthy of being visited, by tourists, and to compare in a general way, some of the more striking features of the landscape of this country with those of regions of similar scenic character in other parts of the world.

Appalachian Mountain scenery.

In doing this we may begin with the mountains. The Appalachian Mountain scenery is only to be compared with that of the minor chains of Europe, since these eastern ranges never rise to the snow-line, and are almost always wooded to their summits. The principal features of Appalachian topography have been already dwelt upon to as great an extent as space would allow; and it needs here only to be stated that, while these features are often of exceeding interest to geologists and other close students of nature, they do not exhibit any forms which in grandeur can be compared with those of common occurrence in the Cordilleras or the Alps or, still more, in the Himalaya. There are from the scenic point of view few, if any, unique figures in the Appalachian ranges. The nearest approach to such is perhaps the Natural Bridge in Virginia—an arch of limestone gracefully spanning a chasm about two hundred feet deep and sixty feet wide—and the Profile in the Franconia Notch, in which masses of rock are so disposed as to represent, in gigantic dimensions, and with striking approach to accuracy in general outline, the profile of a human face. Fully as fine a profile as that in the White Mountains is to be seen in Colorado; but as this latter locality is not easily accessible, and is surrounded by an abundance of grand scenery, it is hardly known to the general tourist, and seems never to have been described, while of the Profile in the White Mountains the descriptions are numerous. To the trained eye of the topographer and geologist the extraordinary intricate and exceptional forms of the ranges and valleys in Central Pennsylvania are of vastly greater interest than such accidental and fanciful occurrences as the Profile in the Franconia Notch.

White Mountain flume.

A purely American name for something which is not of uncommon occurrence in mountain regions is the word "flume," which as applied in the United States, and chiefly in the White Mountains, means a narrow passage or defile between nearly perpendicular rocks, through which runs a stream, and usually with a succession of cascades. The White Mountain flume, in the Franconia Notch, is the locality of this kind most visited. It is about four hundred feet in length, and the walls are from twenty to fifty feet in height. A deep cut in the sand-stone at Keesville, New York, near Lake Champlain, on the Au Sable River, is called a "chasm." The term "notch," is used in the White Mountains, and to a limited extent in the Adirondacks, for pass or mountain valley. Similar passes or depressions in the Appalachian ranges farther South, especially in Pennsylvania, are called "gaps." Those which are deeply cut down, so as to give passage to streams, are called "water gaps:" those in which the depression in the ridge is not sufficiently deep to give passage to a water-course, are known as "wind-gaps." The gorge at the great bend of the Delaware, where this stream traverses the Kittatinny Range, and which is known as the "Delaware Water-Gap," is a prominent scenic feature of this kind.

New England Mountains.

The points in the New England portion of the Appalachian system which are most visited by tourists for the sake of the panoramic views which they afford are Mount Washington—the only point over six thousand feet in elevation in the Appalachians north of North Carolina; Mount Lafayette, in the Franconia Range (5,200 feet); Moosilauke (4,790 feet), a little farther south; Monadnock, near the southern border of New Hampshire (3,169 feet); Mount Mansfield, in the Green Mountain Range in Vermont (4,389 feet); Greylock, in the northwest corner of Massachusetts (3,505 feet). The Adirondacks also attract great numbers of visitors, where the lakes and streams afford opportunities for boating and fishing, and where the scenery is extremely attractive, especially in the autumn after the leaves have begun to change their color, most of this region being still covered with the primeval forest. Mount Marcy, or Tahawus 5,344 feet, and Whiteface (4,871 feet) are the points most frequently ascended in this region; but there are many others, ranging from three to five thousand feet in elevation, which offer fine views and are not at all difficult of access. The Catskill group is also a region much resorted to by tourists, partly on account of the beauty of the scenery, and partly because it is so easily reached from New York. The high mountain region in North Carolina is too remote to attract many visitors from the Northern and Eastern States; and the facilities for travel in that region are as yet extremely deficient, in striking contrast with the condition of things in this respect in the mountain districts of New England and New York, where almost every point can be reached by railroad, and where hotels are numerous and commodious, and the business of receiving and taking care of "summer boarders" seems to be a most important one for the permanent residents.

Cordilleran Mountain scenery.

The mountain scenery of the Cordilleran region is extremely varied in character, as has already been made evident to the reader in the sketch of the topography of that part of the country given in the preceding pages. Only a few of its more important features can here be indicated.

In elevation the Cordilleran ranges are comparable to the Swiss Alps, although there is no point in the United States proper quite as high as Mont Blanc (15,784 feet), or Monte Rosa (15,217 feet); but there are several which surpass the Finster Aarhorn,—the culminating point of the Bernese Oberland (14,026 feet),—and there are a large number which have a greater elevation than the Jungfrau (13,671 feet). A very curious feature in the Cordilleras is the closeness with which the highest peaks approach each other in altitude, as shown by the following table of elevations of all the points in the United States supposed to be over fourteen thousand three hundred feet high, all of which are in the Rocky Mountains, and all in Colorado with the exception of the two volcanic cones, Shasta and Rainier:—

MOUNTAIN.	ELEVATION AT SEA LEVEL.	AUTHORITY.
Blanca Peak	14,464	Hayden Survey.
Mount Rainier	14,444	U. S. Coast Survey.
Mount Shasta	14,442	Cal. Geol. Survey.
Mount Harvard	14,375	Hayden (14,452 Whitney).
Mount Elbert	14,351	Hayden Survey.
Gray's Peak	14,341	Hayden (14,319 Whitney).
Mount Rosalie	14,340	Hayden Survey.
Torrey's Peak	14,336	Hayden (14,375 Whitney).
Mount Evans	14,330	Hayden.
La Plata Mt.	14,311	Hayden Survey.

The above are all the points in the Cordilleras believed to be over fourteen thousand three hundred feet in elevation, with the exception of Mount Whitney, which has been several times measured, with rather discordant results, ranging all the way from 14,600 to 14,898 feet; there is good reason, however, for believing this to be the highest point in the United States, not including Alaska. All the heights given above, with the exception of Rainier, were obtained by the aid of the barometer, and are not to be taken as being absolutely accurate. The elevations in Colorado by the Hayden Survey, which are the result of a combination of barometrical and trigonometrical measurements, are probably pretty close approximations to the truth. The measurement of Rainier, depending as it did on trigonometrical measurements made at a great distance, are—in the writer's opinion—not to be accepted as final, and may be farther from the truth than a single barometrical observation would have been; but this mountain, although several times ascended, has not been measured barometrically.

Elevations in Colorado.

Comparison of Cordilleras and Alps

The essential difference between the Cordilleran ranges and the Alps is that the latter are much more extensively covered with snow than are the former, and that this snow gives rise to permanent glaciers, descending far below the snow-line, and constituting a very prominent and exceedingly attractive feature in the scenery of the Higher Alps. With the exception of the great volcanic cones of the Sierra Nevada and Cascade Range there is no part of the Cordilleras where snow or ice forms a prominent feature in the scenery during the summer, at the time when the mountains are visited by tourists. The winter snow, of course, covers the mountains, often to a very large extent, and summer snow-falls do the same occasionally; but the effect of this latter kind of occurrence is in no respect to be compared with that of the permanent Alpine snows and glaciers; indeed, the irregular melting away of the summer's snow on the flanks of the ranges, leaving great patches promiscuously scattered here and there, is often rather a disagreeable than a pleasant feature. A remarkable exception is the cross of snow on the "Mountain of the Holy Cross," to which allusion has already been made. There are small masses of ice around the highest peaks of some of the Cordilleran ranges, but these are frequently covered and entirely concealed by snow, even during the summer; and whether properly called glaciers or not, they have no effect on the landscape, and are only seen by those ascending to the summits of the highest peaks, and then only in favorable seasons.

The snow and ice covering the higher portions of the great volcanic cones of the Pacific coast are, however, conspicuous features in the scenic effect produced by these grand masses; and the type of landscape which they present is a peculiar one, and, perhaps, the most impressive which this country offers. Lassen's Peak is the most southern of these volcanic masses, and it is nearly as high as Mount Hood; but it rises from a so much higher base, and, being so much farther south, is so much less covered with snow than that cone, that it is by no means as grand an object as its more northern rival. The snow fields on the upper portion of the southern flank of Lassen's Peak have always presented nearly the same appearance in summer when seen in different years by the writer, indicating a considerable degree of permanency; yet when these fields were climbed over there was no indication of the existence of ice visible.

Mount Shasta.

Mount Shasta, seventy miles farther north, and nearly four thousand feet higher than Lassen's Peak, is, of course, much more covered with snow, which, although diminishing greatly in amount after several successive dry seasons, never disappears entirely, even on the south side. On that side, when this mountain was ascended by the writer in September, 1862, seven miles of the ascent were made over a snow-field filling one of the great ravines by which this mighty cone is furrowed. Seven years later this field was almost entirely gone at the same season of the year, and the evaporation of the snow had uncovered a large field of ice on the north side of the cone, of which nothing had been visible in 1862, in looking from the summit down upon the flanks of the mountain in that direction. At all times of the year when seen by us, from 1860 to 1864, at a distance of fifty or sixty miles, Mount Shasta presented the appearance of a dazzling white cone when shone upon by the sun. The outline of the mass, as seen from a point fifty-three miles distant in a southerly direction, was that of an almost regular cone, growing slightly steeper toward the summit, and having a slope of 25°–27° on one side, and of 30°–31° on the other, with a smaller, somewhat steeper, subsidiary cone on the western side.

Mount Hood.

Mount Hood is a very conspicuous and grand mountain mass on account of its isolation, its regular form, and the extent to which it is covered with snow. It appears higher than it really is, because it can be seen from a point only about thirty miles distant, which is but little above the sea-level, and where the fine scenery of the Columbia River and of the basaltic region adjacent to it makes an admirable foreground. It is a favorite subject for landscape artists, and has been repeatedly climbed by tourists, the ascent being without special difficulty. The same may be said in regard to Mount Shasta.

Mount Rainier.

Mount Rainier, of which the aboriginal name is said to be Tacoma, is much less accessible than either Hood or Shasta, but has been climbed several times, and first in 1870 by Messrs. Stevens and Van Trump, of Olympia, Washington. As seen from the southern end of Puget Sound, at a distance of forty miles from its base, this mountain is an object of surpassing grandeur. It is of almost exactly the same height as Shasta, but is much more deeply and extensively covered with snow and ice than is that cone. As Rainier is in the midst of a tangled forest without roads, and almost without trails, it can only be reached by travelers fitted out with pack animals and camp equipage, and who are able and willing to bear the fatigues of camp life in a difficult forested country. So far as known to the writer, its higher portions have never been visited by any skillful photographer; while Shasta and Hood have been finely photographed from a great number of points of view by Mr. C. E. Watkins, of San Francisco.

On the whole, these great isolated snow-covered volcanic cones of the Pacific coast are, from the scenic point of view, the grandest objects which this country presents. In the picturesque effect which they produce they may be fairly placed on an equality with anything which the Alps have to show. Indeed, so far as an opinion can be relied on which is based on comparison of photographs only, these almost extinct volcanoes of the Cascade Range must be fully as attractive from a scenic point of view as the higher ones of Mexico, and, perhaps, not much less admirable as scenic objects than the much loftier cones of South America, which all rise from very high bases, and of which the snow-covered portions seem but insignificant in extent as compared with the uncovered rocky slopes.

Granitic masses.

Among the scenic features of the Cordilleras in the United States there are two forms of rock masses which are, in certain regions, developed to such an extent as to make them peculiar and exceedingly impressive as elements of the landscape. One is the pinnacled character of the granitic masses; the other the dome-shaped summits of the same rock. The pinnacles are something like the Aiguilles of the Mont Blanc group, but in the latter the rock is chiefly slaty and not granitic. In parts of the Cordilleras, notably in the vicinity of Mount Whitney; in a group of mountains called the Castle Range, near Mount Shasta, and in the Wind River Range, the granite occurs in the form of almost isolated pinnacles, or groups of pinnacles, which rise literally thousands of feet above the general level or crests of the ridges on which they stand, so sharp and so vertical that the descriptive term "spike" is one which involuntarily suggests itself to the mind on seeing them. These pinnacles are, of course, too steep to be covered by snow; but they rise often from great snow-fields, presenting a wonderful appearance of mingled desolation and grandeur, and making, perhaps, as strong an impression on the mind as any type of mountain scenery can.

Yosemite Valley.

The dome structure of the granitic masses, so wonderfully exhibited in parts of the Sierra Nevada, is also a feature of great scenic interest, and one which, so far as known to the writer, is not seen anywhere else in the world on so grand a scale. These domes are especially well exhibited in the region just above the Yosemite Valley; and here also is that unique feature of the scenery—one of those great, rounded, and exceedingly steep masses, rising almost five thousand feet above the adjacent valley, and which has been split in two so that on the side fronting that valley it presents an absolutely vertical face of somewhat over fifteen hundred feet in height.

Next to mountains, water-falls, perhaps, offer the greatest scenic attractions, and the number and variety of form of those occurring in the United States is very great. Indeed, there are in the Cordilleras great numbers of water-falls which have been seen by explorers, but which have never been described or named; and some of these unknown localities are finer than any of the much-visited falls of the Alps, or even of Norway.

Waterfalls.

Among the well-known and frequently visited water falls, there are three which deserve special notice—Niagara, the Shoshone, and the Yosemite Falls. The first is the type of a fall in which volume of water is the all-important feature. In the Shoshone fall, the volume of water is large, although greatly inferior to that of the Niagara; the height is considerable,—somewhat greater than that of Niagara,—and the surrounding scenery grand and entirely uninjured by the so-called "improvements" of civilization. The Yosemite fall, on the other hand, is one in which the volume of water is small, but the height extraordinary, while the setting of the fall is surpassingly grand. Niagara is so well-known that description is unnecessary. It is the one of the scenic attractions of the country most frequently visited, not only because it is one of the greatest of the water-falls of the world—only the Falls of the Zambezi surpassing it in elevation and, perhaps, in volume—but because it is within a few hours' easy ride of the Atlantic coast. The Yosemite Valley, with all its water-falls, is farther away from the East than the Shoshone Falls, but really much more accessible than the latter, which lies at a considerable distance from any inhabited region. Among the entirely unvisited regions of water-falls, that of the Canon of the Tuolumne River, a few miles north of the Yosemite Valley, is, perhaps, the most interesting. Here are falls and cascades of large volume and great height, set in the midst of the wildest and most romantic scenery—a region into which hardly a traveler has ever found his way. Very much the same may be said with truth of the region of the Southern High Sierra adjacent to Mount Whitney, where we find many of the same features as those which characterize the Yosemite, and on almost as grand a scale as in this now very frequently visited and comparatively accessible locality.

Scenery of Colorado without a rival.

A most remarkable type of scenery, and one which combines features equally interesting to the tourist and the scientific observer, is that of the plateaux of the Cordilleras, of which a brief account has already been given in the preceding pages. The canons of the Colorado and its branches, once so remote, have now been brought comparatively near by the extension of railroads toward the Southwest, and the tide of pleasure travel is beginning to flow in that direction. In the peculiar type of scenery which is unfolded along the Colorado, this country is without a rival. The loess region of Northern China may be stranger and more unintelligible in the record which it presents of past geological events; but from a scenic point of view the tremendous canons of the Southern Plateau region, with their many-colored walls, may unhesitatingly be included in the list of the earth's greatest wonders.

A portion of the country which has within the past few years become the resort of travelers in search of the picturesque, and which is now quite accessible by railroad, is the Geyser region of

the Yellowstone. Here the scientifically interesting and the picturesque unite to furnish a type of scenery without a rival of its kind, surpassing even the now devastated wonderland of New Zealand. The Yellowstone Park, as it is frequently called, because reserved by the United States and devoted to public use as a visiting ground or park, with the idea of protecting it from speculators and mischief-makers, was early known to some of the more adventurous of the fur hunters who roamed over the distant Northwest; but it is only within a few years that descriptions of it have been published, and its extraordinary character so clearly established as to induce travelers to undertake the long journey necessary for its inspection. Thermal springs in great number, many of which are the periodically-spouting, or geyser type; pools of hot water, both large and small, the sides and bottoms of which are lined with the most exquisitely and brilliantly colored microscopic vegetation; remarkable deposits from the hot springs, some of which exhibit curious forms, seen nowhere else, except in Asia Minor and in New Zealand, as it was before the volcanic eruption of 1886; grand mountain scenery, with water-falls, lakes and deep canons, whose walls are fantastically colored by volcanic deposits and sulphurous emanations—these are the principal features of the Yellowstone region. It can be reached by the Northern Pacific railroad, from a station on which road, called Livingstone, ten hundred and thirty-two miles from St Paul, a branch fifty-one miles in length runs to Cinnabar, on the boundary line of the so-called "Yellowstone National Park." There are numerous excellent photographs of this region, which has also been finely illustrated in a folio volume with chromo, lithographs from paintings by Thomas Moran. The geological and scenic peculiarities of the Yellowstone region have been fully elucidated in various United States Geological reports, and especially in a voluminous one by Dr. A. C Peale, included in the second volume of Hayden's Report for the year 1878.

Thermal Springs.

There is a type of scenery of a remarkable character well exhibited along the base of the Rocky Mountains at various points, and especially at a locality called the Garden of the Gods, near Pike's Peak, and easily accessible by railroad. The attraction here is the remarkable effect of the erosion and withering of the soft sandstones, which occur in beds of great thickness. Many fantastic shapes, such as columns or obelisks, of large dimensions, occurring either singly or in clusters, and often capped in the most curious manner by great flat tables of harder rock, are seen in this interesting region. Indeed, all along the eastern base of the Rocky Mountains in Colorado are many strange and picturesque forms, partly the result of direct uplift, and partly of erosion, which are alike interesting to the lover of the picturesque, and the student of geology. The long crested uplifts of sedimentary rock worn into curved outlines, and often of grand dimensions, which characterize this region are known by the familar name of "hog-backs," and the region itself as the "hog-back country."

Garden of the Gods.

Of the scenic effect of the vegetation of the country, and especially its forests, notice has already been taken to as great an extent as space here permits.

MINERAL RESOURCES.

Iron ore was smelted at Falling Creek, Virginia, as early as 1620. The raids upon the whites at this time, made by the Indians, put a stop to the industry. From 1643 to 1671 the business of smelting and manufacturing iron was successfully carried on at Lynn, Massachusetts. About 1789 there were fourteen furnaces and more than thirty forges in operation in Pennsylvania.

The business of mining for other metals than iron within the territory of the United States is of much more recent origin. To this statement, however, an exception must be made in reference to the metal copper, which had been extensively mined in the Lake Superior region long before the first visit of the English to these shores. Indeed, so ancient are these workings that no positive knowledge exists as to the people or tribes by whom they were executed. When the region in question was opened to the whites for settlement in 1844, it was found that the copper-bearing rocks had been mined through their whole extent along the southern shore of Lake Superior, and even on the almost inaccessible island called Isle Royale. There is no reason to suppose that these ancient workings, which in some places had been carried to a depth of more than fifty feet in the solid rock, were known to the Indians inhabiting that region at the time of the first visit of the Jesuit Fathers in 1659-60; and the appearance of the excavations indicates, beyond possibility of doubt, that they had been made long before that time.

Mining business.

About the middle of the seventeenth century the metalliferous indications common in New England, and especially in Connecticut, engaged the attention of Governor Winthrop, by whom mineralogical notices of that region were sent to England and published in the Transactions of the Royal Society.

Governor Winthrop.

Just at the beginning of the eighteenth century a Frenchman, Le Sueur, explored the region of the Upper Mississippi, and sent back to France, rock which he had mined, supposing it to be an ore of copper; but it proved to be of no value. Later in 1719 and 1720, the French again attempted to explore what was then called the western portion of the country, along the Mississippi near the junction of the Missouri; and some mining of the lead ore, which at that time had already become known, was attempted. The precious metals being what was sought for, and there being none found in the region, the enterprise was soon abandoned.

At the beginning of the present century, as it appears from what has been stated all that had been done in the way of discovering and developing the metallic wealth of the United States was the mining and smelting of the ores of iron, on a limited scale, in the Atlantic States, and a small production of lead in the mining region of Missouri. Exact statistics of these metals at the beginning of the nineteenth century are wanting. The amount of iron produced in 1810 has been estimated at fifty thousand tons; the production of lead about that time may have been approximately one thousand tons a year.

An event of great importance took place almost immediately after the value of the Lake Superior copper mining district had been fully ascertained, in the year 1841. This was the demonstration of the fact that gold existed in large quantities along the western slope of the Sierra Nevada.

Gold.

The occurrence of gold on that portion of the Pacific coast, called by the Mexican-Spanish Upper California, had been known for several years prior to its discovery by immigrants from the United States and workings had been carried on for this metal in the Coast Ranges, far south of the locality where it was discovered in 1848.

The demonstration of the fact that over a vast extent of that distant country gold was to be had in almost unstinted quantity, as it at first—not without reason—appeared, led to an extraordinary excitement throughout the older States, and to an emigration from all parts of the world toward the newly discovered land of gold on an unprecedented scale of magnitude.

COAL.

The area underlain by the coal-measures in the United States is very large, as will be seen from the following table, which represents approximately the coal areas of Carboniferous age east of the Cordilleran region. That different portions of the areas here designated are of very different value, as respects quality and quantity of coal, is certain; and that portions of them do not contain coal-beds of sufficient thickness or of good enough quality to be worked with profit, either at present or at any future time, is also an undoubted fact, although these unproductive portions are, except perhaps, in the case of the Western and Michigan fields, of comparatively small extent:—

Name of the field.	Area.	Coal beds.
Rhode Island	500	sq. miles.
Appalachian	59,165	"
Central (Illinois Indiana, and Kentucky)	47,250	"
Western (Missouri, Iowa, Kansas, Arkansas and Texas)	78,400	"
Michigan	6,700	"
Total	192,045	sq. miles.

Of these fields the Appalachian is at present by far the most important, and is likely to remain in this position for an indefinite period. The coal field of Rhode Island is not now, nor has it ever been, worked to such an extent as to be of special importance. The Michigan coal-field has also no present value, the quality of the coal being inferior, and the conditions not such as to allow successful competition with the coal of adjacent regions. The present relative importance of the different States as regards the production of coal and the yield of the various fields will be easily recognized from an inspection of the following table:—

COAL PRODUCED IN THE SEVERAL STATES AND TERRITORIES, NOT INCLUDING THE LOCAL AND COLLIERY CONSUMPTION, AND THE VALUE OF THE MINES IN 1885.

STATES AND TERRITORIES	1882.	1883.	1884.	1885.
	Long tons	*Long tons*	*Long tons*	*Long tons*
Pennsylvania:				
Anthracite	29,120,096	31,793,027	30,718,293	32,265,421
Bituminous	22,000,000	24,000,000	25,000,000	23,214,285
Illinois	9,000,000	10,350,000	10,000,000	8,742,745
Ohio	9,450,000	8,259,429	7,650,162	6,978,732
Maryland	1,540,466	2,206,172	2,409,051	2,865,574
Missouri	2,000,000	2,250,000	2,500,000	2,750,000
West Virginia	2,000,000	2,805,565	3,000,000	3,008,091
Indiana	1,976,470	2,560,000	2,200,000	2,120,535
Iowa	3,127,700	3,881,300	3,903,458	3,583,737
Kentucky	1,300,000	1,650,000	1,550,000	1,700,000
Tennessee	850,000	1,000,000	1,200,000	892,857
Virginia	100,000	225,000	300,000	567,000
Kansas	750,000	900,000	1,100,000	1,082,230
Michigan	130,000	135,000	135,000	45,178
Rhode Island	10,000	10,000	10,000	.....
Alabama	800,000	1,400,000	2,000,000	2,225,000
Georgia	175,000	200,000	200,000	133,929
Colorado	947,749	1,097,851	1,108,950	1,210,769
Wyoming	631,932	696,151	805,911	720,928
New Mexico	146,421	188,703	196,924	271,442
Utah	250,000	250,000	250,000	190,286
California	150,000	175,000	150,000	63,942
Oregon	30,000	50,000	50,000	44,643
Washington	225,000	300,000	300,000	339,510
Texas	.....	100,000	100,000	133,928
Arkansas	.....	75,000	150,000	133,928
Montana	.....	60,000	60,000	77,179
Dakota	.....	50,000	31,270	23,214
Idaho	.....	10,000	20,000	893
Indian Territory	.....	175,000	400,000	446,429
Totals	86,710,834	96,823,198	97,518,899	95,832,765

States and Territories.	Value of Coal at Mines, 1885.
Pennsylvania: Anthracite	$72,274,544
Bituminous	24,700,000
Illinois	11,456,493
Ohio	8,206,988
Maryland	3,209,891
Missouri	3,850,000
West Virginia	3,369,062
Indiana	2,731,250
Iowa	4,819,230
Kentucky	2,094,400
Tennessee	1,100,000
Virginia	666,792
Kansas	1,410,438
Michigan	75,000
Rhode Island	.....
Alabama	2,990,000
Georgia	180,000
Colorado	3,051,590
Wyoming	2,421,984
New Mexico	918,606
Utah	426,000
California	214,845
Oregon	125,000
Washington	950,615
Texas	300,000
Arkansas	225,000
Montana	302,540
Dakota	91,000
Idaho	4,000
Indian Territory	750,000
Totals	$152,915,268

Pennsylvania anthracite.

The commercial product, exclusive of that which is consumed at the mines, known as colliery consumption, during 1885, was: Pennsylvania anthracite, 36,137,272, short, or 32,265,421 long tons, the market value of which has been estimated to have been $72,274,544; bituminous, brown coal, lignite, and small lots of anthracite, mined in Colorado and Arkansas, 71,195,358 short, or 63,567,284 long tons, the market value of which has been estimated to have been $80,640,724, making a total production of 107,332,629 short ,or 95,832,705 long tons, valued at $152,915,268. The total production, including colliery consumption, was Pennsylvania anthracite 38,335,973 short, or 34,228,548 long tons, all other coals 72,621,549 short, or 64,840,668 long tons, making the total absolute production of the coal mines of the United States for the year, 110,957,522 short, or 99,069,216 long tons.

The coal areas of Carboniferous age in the United States are five in number. They are:—

The Massachusetts-Rhode Island area, comprising approximately 500 square miles;

The Alleghany area, about 59,000 square miles;

The Michigan area, about 6,700 square miles;

The Illinois, Indiana and West Kentucky area, about 47,000 square miles; and

The Iowa, Missouri, Kansas, Arkansas and Texas area, about 78,000 square miles;

Forming a total of about 191,200 square miles, underlaid by coal-bearing strata, of which not over 120,000 square miles contain workable coal-beds.

Two general classes of coal are recognized, viz., anthracite and bituminous, the latter being often subdivided into bituminous and semi bituminous coal

Anthracite forms the whole of the coal found in the Massachusetts-Rhode Island area and in that portion of Pennsylvania occurring in the neighborhood of Pottsville, Mahanoy City, Shamokin, Hazleton, Mauch Chunk, Wilkes-Barre and Scranton. It also occurs to a limited extent in Virginia.

Bituminous coal occupies the rest of the districts just named.

A glance on a map of the coal-fields shows how unequally the coal areas are distributed over the United States. While New England and the seaboard Atlantic States contain practically no coal, the greatest development of the workable coal strata is in the Alleghany mountains and to the west of them, extending from Pennsylvania and Ohio in an unbroken line to Alabama.

Next to the one just mentioned the most important field is the one occurring in Illinois, Indiana and Western Kentucky. The coal area which extends from Iowa to Texas is of much less importance and extent, and the Michigan coal-field has scarcely been opened.

Different coal fields.

The Massachusetts-Rhode Island Area.—The coal is confined to eastern Rhode Island and Bristol and Plymouth counties in Massachusetts. At present the only mine worked is at Portsmouth, Rhode Island, where E one of the three beds found, is being exploited. The coal-beds in this area seem to vary from one to thirteen in number, but the explorations made in the past have been so unsystematic and pecuniarily, so unsatisfactory, that the data on which these views are founded are not very reliable. The character of the coal is the hardest kind of anthracite, often containing spangles and plates of graphite disseminated through it, which characteristics are due to the highly metamorphic action it has undergone. To this same action is due in a great measure the peculiarly folded character of the deposits, which has locally caused expansions and contractions of the coal-beds, so that in some places they are thirteen feet thick, and in others but a few inches. Such an irregularity renders the cost of mining the coal very great, owing to the large amount of "dead work" required, and to this cause may in part be ascribed the slight progress which has been made in the development of the region. The working is now confined to a single mine.

Alleghany area.

The Alleghany Area, the most important in the United States in its extent in the number of workable coal-beds and in the quality and variety of the coals found, is situated in Pennsylvania, Ohio, West Virginia, Virginia, eastern Kentucky, East Tennessee and northern Alabama. This area is divided into numerous different fields, more or less contiguous to one another, and of which a brief mention follows:

The Anthracite Coal-Fields of Eastern Pennsylvania.—These anthracite fields are confined to a limited area of not over 475 square miles, situated in the counties of Carbon, Schuylkill, Northumberland, Columbia, Dauphin, Luzerne and Lackawanna. Three districts are commonly recognized in this region, known as the first, second and third coal-fields. The Coal Measures within this region are almost universally surrounded by two mountain-ridges, the exterior one consisting of sub-Carboniferous sandstone. This is separated from the interior ridge by a valley, more or less broad, of easily decomposing red shale, overlying which occurs the true conglomerate, holding in its bosom the valleys or basins in which the anthracite occurs. These two series of ridges were the efficient protectors of the coal from the denuding agents, which removed it from the intervening barren districts, separating the different anthracite basins from each other and from the bituminous coal-fields of Central Pennsylvania.

Semi-anthracite beds in Sullivan county.

North of the anthracite coal-fields proper, is the semi-anthracite of the Bernice basin in Sullivan county, Pennsylvania, where the principal coal-bed, eight to nine feet thick, contains eight to nine per cent. volatile matter. The coal, while classed as an anthracite, lacks the brilliant anthracite luster and conchoidal fracture, generally breaking in cubes; in consumption it closely resembles the semi-anthracite of Lykens Valley, in Dauphin county. The whole of this coal is carried North and West for distribution and consumption.

Peno.

The Broad-Top-Coal-Field of Pennsylvania.—The coals of this basin, which occupies about twenty-five square miles, all belong to the Lower Protective Coal Measures, of which more presently, with the exception of a few acres of coal of the Pittsburgh bed. The measures in this coal-field have been much disturbed, so that the relations of the strata are not fully understood, and consequently frequent errors have been made in identifying the coal in different portions of the district. There are apparently three workable beds. The coal of this district, while actually bituminous in character, is commonly called semi-bituminous on account of the comparatively small amount of volatile matter it contains, often as low as eight per cent. At one time the mines of this district were actively worked, the coal being used for steam-raising and rolling-mill purposes. Since the opening of the Clearfield coal-district and the more active exploitations of the Cumberland coal-beds, the mining interests of this district have languished, owing in part to an inferiority in quality of this coal to either of the others; in part to the greater cost of extraction due to the more disturbed condition of the strata.

The Bituminous Coal-Fields of Pennsylvania.—While the bituminous coal fields of Pennsylvania are contiguous to those of Ohio and West Virginia, the latter being actually but extensions of the former, they are, for the sake of description, separated geographically.

In the bituminous coal area of Pennsylvania, Ohio and West Virginia geologists and engineers have recognized (1) Upper Barren Measures, (2) Upper Productive Coal Measures; (3) Lower Barren Measures; (4) Lower Productive Coal Measures; (5) Interconglomerate coals.

The following coal strata occur in the Upper Productive Coal Measures, commencing with the upper bed: Waynesburg coal-bed, Sewickley coal-bed, Redstone coal-bed, Pittsburgh coal-bed. Of these the Pittsburgh is of far the greatest economical value, but the others are locally of importance.

In the Lower Barren Measures are a few beds which are most uncertain in character and of little economical value; they are most unreliable in character, and while locally they thicken, so as to be of some local value, they speedily thin out again.

Below the Lower Barren Measures are found the following coal strata, viz: Upper Freeport coal-bed, Lower Freeport coal-bed, Upper Kittanning coal-bed, Lower Kittanning coal-bed, Clarion coal-bed and Brookville coal-bed.

Still lower, geologically, are the coals occurring in the Great Conglomerate, which include the Clarion group, C the Quakertown bed of Lawrence county, and the Sharon bed of Mercer county. These coals occur in six different basins, of which the sixth is the most southwesterly in position and least distinct as to its division. Each basin is separated from its neighbor by an anticlinal wave, or rather by a series of separate anticlinals, the ends of which lap past each other.

Having the Alleghany mountains as an eastern barrier, the coal fields extend westwardly in a more or less unbroken succession into Ohio. But the coal-beds are by no means equally distributed over this area. As middle Pennsylvania and middle New York were lifted, by geological action, much higher above the old sea-level than southwestern Pennsylvania, Ohio and Virginia were, the destruction of the coal measures has been greatest in the North and Northeast, gradually diminishing toward the Southwest. Only the lowest, or two or three lowest, beds of coal have been left as isolated patches on the mountain tops of Wyoming, Sullivan, Lycoming, Clinton, Bradford, Tioga, Potter, Cameron, McKean and Warren counties.

The great productive bituminous coal-field may be said to commence in the belt of counties composed of Clearfield, Jefferson, Clarion, Venango and Mercer counties—a distance of 140 miles to the Ohio line from the crest of the Alleghanies. In the counties last mentioned, as well as in Cambria, Indiana, Armstrong, Butler, Lawrence, Beaver, Somerset (with the exception of the Salisbury patch), eastern Westmoreland, and eastern Fayette, only the Lower Productive coal-beds, and in places the inter-conglomer-

ate coals have been left, while the Upper Productive Measures have been swept away. These latter are found in a great part with all the Lower Productive Coal Measures in Allegheny, western Westmoreland and western Fayette counties, while the whole of the Upper and Lower Productive Measures occur in Washington and Greene counties. In brief, the Coal Measures are most eroded toward the Northeast, and are least disturbed toward the Southwest.

The Ohio coal fields.

THE COAL-FIELDS OF OHIO.—The Ohio coal fields are but the western extension of the bituminous coal-region of Pennsylvania; consequently, the coal-beds which are found in them are the same, with local modifications, as those of the latter State. Commencing at the Pennsylvania-Ohio line we find that "the margin of the coal basin forms a tortuous line, commencing in the northern part of Trumbull county, passing thence southwesterly to the Mahoning Valley, where it is deflected far to the southeast. West of Youngstown it runs through the southern townships of Trumbull county, where it is deflected north nearly to the center of Geauga county, where it incloses a long tongue and two or three small islands of coal. Thence returning into Portage, it passes southeasterly through the southern part of Summit, where it is deflected to the northwest. From here it runs southwesterly again to the southwest corner of Holmes. Thence it passes nearly southward along the western margin of Holmes and Coshocton; thence southwesterly through the eastern part of Licking. From here its course for fifty miles is nearly south to the center of Hocking, where it turns slightly westward, and passes through Vinton, Jackson, Pike and Scioto to the Ohio, where it crosses" into Kentucky. The counties more or less underlaid by coal in Ohio are Mahoning, Columbiana, Portage, Stark, Holmes, Carroll, Tuscarawas, Jefferson, Harrison, Belmont, Guernsey, Coshocton, Muskingum, Perry, Noble, Morgan, Washington, Monroe, Meigs, Athens, Jackson, Gallia, Lawrence, Trumbull, Summit, Medina, Wayne, Licking, Hocking, Pike and Scioto.

Virginian coal fields.

THE COAL-FIELDS OF WEST VIRGINIA AND VIRGINIA.—No State in the Union surpasses West Virginia in the variety of coals it contains, nor does any contain an equal amount in proportion to its area; for, of the fifty-four counties in the State, but six are entirely destitute of this important fuel. In many of them, however, the coal is so deeply buried, and in others the means of transportation are so inadequate, that it will be many years before the mineral wealth they contain will even commence to be developed. In Virginia, on the other hand, there are but six counties which contain coal of Carboniferous age, and they are in the extreme southwestern corner of the State, adjoining West Virginia and Kentucky. The coal-field of West Virginia and Virginia is but an extension of the Appalachian coal field from Pennsylvania, Maryland and Ohio, and the general system of the measures, is the same, with the exception that locally some of the coal-beds in the Great Conglomerate are of a sufficient thickness to be profitably worked.

Maryland coal field.

THE MARYLAND COAL-FIELD, better known as the Cumberland coal basin, is but a prolongation of the Potomac basin mentioned under West Virginia. This coal field is one of the most important in the United States, due to the thickness of the main bed, its good quality, and the large annual production. The coal is most extensively used for rolling mill and steam-raising purposes, its chief and only competitor among the bituminous coals being that from the Clearfield region of Pennsylvania. This coal-field is an outlyer of the main Alleghany coal area, of which there are several others in Pennsylvania, such as the Broad-Top, Snowshoe, Ralston and Blossburg basins. The coal is semi-bituminous in character, and does not coke quite so readily as those which contain more gas.

THE EASTERN KENTUCKY COAL-FIELD is but a continuation of that described in Ohio and West Virginia. The western boundary of the Alleghany coal area in Kentucky is approximately as follows, in a north-south direction: Starting at the Ohio river near Tygart's creek, the line runs through Greenup, Carter, Rowan, Morgan, Powell, Estill, Jackson, Laurel, Pulaski, Wayne and Clinton counties to the Tennessee line. This coal field underlies the whole of fifteen counties and a portion of five others, containing 8,983 square miles. The boundary line is very crooked, throwing off numerous spurs, extending west of the line mentioned.

THE TENNESSEE COAL-FIELD is but a prolongation southward of the eastern Kentucky field. Its area is co-extensive with that of the Cumberland mountain or table-land. The Cumberland mountain crosses Tennessee obliquely and although much indented by valleys and coves, is nowhere completely cut in two by them. The eastern border of this table-land is comparatively a nearly direct or gracefully curving line, the indentations made by the streams on this side being scarcely noticeable. It is very irregular, however, along its western border, being cut out and notched by deep valleys and coves, separated from each other by long spurs jutting to the West. These deep indentations give the western outline a very ragged appearance. Along the Kentucky line the coal field is about seventy miles wide, while it narrows along the Alabama line to fifty miles.

THE GEORGIA COAL-FIELD.—The Tennessee coal-field west of the Sequatchie valley extends over the border into Alabama, and then soon dies out. That on the eastern side of the valley, on the contrary, extends through Dade, Walker and Chattooga counties in Georgia into Alabama. Almost the whole of the former is underlaid by an excellent quality of bituminous coal, while there is not quite such an extent of it in the other two counties.

THE ALABAMA COAL REGION is an extension southward of the Georgia into northern Alabama. It is divided into three fields, the Black Warrior, the Cahaba and the Coosa. Of these three the first is much the largest.

THE ILLINOIS, INDIANA AND WEST KENTUCKY AREA.—The coal measures of this portion of the United States form but one area.

THE INDIANA COAL-FIELD.—The Carboniferous Measures occur in the counties of Posey, Vanderburgh, Warwick, Spencer, Perry, Crawford, Gibson, Pike, Dubois, Knox, Daviess, Martin, Sullivan, Greene, Clay, Owen, Vigo, Parke, Vermillion, Fountain and Warren; or, in other words, in the southwestern part of the State. There are three beds of coking coal in this field, varying from four and a half to ten feet in thickness, and three seams of open-burning or splint coals that range from two and a half to five feet in thickness, the average thickness being four feet. One bed of cannel coal occurs in Daviess county, about four and a half feet thick. The principal coals mined with this exception are the block coals from Clay county.

PETROLEUM.

Petroleum has been known to exist in this country almost from its first settlement. The records of travels, especially through the region west of the Appalachian chain, in what was then known as the Great Ohio Valley, contain constant evidences of the existence of this material in the reports of burning springs and the oil that accompanied them.

It was not, however, until 1859, at the time of the drilling of Drake's first well, that it began to assume any commercial importance. The excitement attending the discoveries in the Pennsylvania oil field led to explorations in many States, and developed the fact that petroleum existed in many localities. These localities are chiefly on the western slopes of the Appalachian chain, reaching from Petrolea in Ontario to just across the Tennessee State line in Alabama. Some quite extensive fields are also found in California and in Wyoming, and later evidences of the existence of oil have been discovered in other States, but the Appalachian and the California oil fields are at present the only ones of commercial importance.

The most important of these fields are what are described further on as the Pennsylvania and New York oil fields. Next in importance to these is the Macksburg field in Ohio, near Marietta, the third in importance being the California field. West Virginia produces some small amounts of heavy oil for lubricating purposes, its light oil having been comparatively exhausted some years since. There are also oil fields that with better facilities for transportation might be of importance in both Tennessee and Kentucky. The Wyoming oil fields described further on in this report are also of importance in the amount of petroleum that can some day be made available; but of this field, as of all others outside of the Pennsylvania and Macksburg regions, with the exception of California, it will be found that the expense of producing and transporting the oil to market will effectually prevent any great production in these fields until the price of Pennsylvania petroleum shall materially advance.

In the following table will be found a consolidation of the statistics of the production of petroleum in the various fields of the country, so far as the same could be obtained from the beginning of operations in these fields:—

PRODUCTION OF CRUDE PETROLEUM IN THE UNITED STATES FROM 1859 TO 1887.
(*In barrels.*)

Years.	Pennsylvania and New York.	West Virginia.	Ohio.	Kentucky, Tennessee, and other States.	California.	Total.
1859	2,000					2,000
1860	500,000					500,000
1861	2,113,609					2,113,609
1862	3,056,690					3,056,690
1863	2,611,308					2,611,308
1864	2,116,109					2,116,109
1865	2,497,700					2,497,700
1866	3,597,700					3,597,700
1867	3,347,300					3,347,300
1868	3,646,117					3,646,117
1869	4,215,000					4,215,000
1870	5,260,745					5,260,745
1871	5,205,234					5,205,234
1872	6,293,194					6,293,194
1873	9,893,786					9,893,786
1874	10,926,945					10,926,945
1875	8,787,514		3,000,000		175,000	12,162,514
1876	8,968,906	120,000	31,763		12,000	9,172,669
1877	13,135,475	172,000	29,888		13,000	13,350,363

PRODUCTION OF CRUDE PETROLEUM.—*Continued.*

Years.	Pennsylvania and New York.	West Virginia.	Ohio.	Kentucky, Tennessee, and other States.	California.	Total.
1878	15,163,462	180,000	38,179	.....	15,227	15,396,868
1879	19,055,176	180,000	29,112	.....	19,858	19,914,146
1880	26,027,631	179,000	38,940	.....	40,552	26,286,123
1881	27,376,509	151,000	33,867	.....	99,862	27,661,238
1882	30,055,500	128,000	39,761	.....	128,636	30,349,897
1883	23,128,389	126,000	47,632	.....	142,857	23,444,878
1884	23,772,209	90,000	90,061	.....	262,000	24,214,290
1885	20,776,041	91,000	650,000	.....	325,000	21,842,041
1886	25,798,000	102,000	1,752,970	225,000	377,145	28,255,115
1887	22,356,193	145,000	5,018,015	51,817	678,572	28,249,597
Total.	330,312,143	4,664,000	8,030,268	276,817	2,289,709	345,573,177

Pennsylvania and New York fields.

More than 50 per cent. of all the oil produced in the United States is from the Bradford and Alleghany fields, these two districts being credited with 11,099,512 of the 21,842,041 barrels produced in the country in 1885. The production in these fields, however, is kept up only by the liberal use of nitro-glycerine, and even with the use of explosives to an extent before unknown the production is falling off, and it is a question if the vigor of these old fields can be restored

California fields.

From the time of the first settlement of California by the whites there have been evidences, in the form of spring and seepage from the asphaltum beds, of the existence of petroleum in the State. No attempts, however, were made to utilize these deposits until the excitement following the Pennsylvania oil discoveries led to prospecting these surface deposits and the eager searching for others. During the years 1865 and 1866 upwards of seventy companies, each with a large nominal capital, were incorporated in California for the purpose of searching for petroleum. While a majority of these companies proceeded no further than to organize, having never expended any money in actual operations, some of them began active operations, sinking wells and driving tunnels in their search. Most of the work at this time was in Humboldt, Colusa, Contra Costa, Santa Clara, and Los Angeles counties.

About 1875 the oil business in California took on new life. Two wells put down that year yielded some 15 or 20 barrels each per day. Drilling by steam began to be more generally used in place of the spring pole. In 1877 the Ventura and the Pico Canon wells produced daily 30 and 40 barrels respectively. Some 20 barrels of refined oil were made daily at the Pico refinery at the latter place. The next year 60 barrels of crude oil were for a number of days taken from the Boyer well, in the Santa Cruz mountains, every 24 hours. The oil here, as in most cases in California, was brought to the surface by pumping, no flowing wells having as yet been struck in the State.

From this time there has been a steadily increasing output of oil in California.

Wyoming fields.

There are, as far as now known, two oil fields in this State, probably originally the same, but now divided by the range of mountains in which the headwaters of the North Platte and Wind rivers find their sources.

Washington fields.

As yet no valuable deposits of petroleum or its concomitant, asphaltum, have been found anywhere in the far west, except in California. Recently encouraging indications of mineral oil are reported to have been met with at Puyallup, in Washington.

NATURAL GAS.

According to Mr. Swank, natural gas was first used as a fuel in connection with the manufacture of iron and steel at Leechburg, Armstrong county, Pennsylvania, in 1874, when it was taken from a well twelve hundred feet deep, and where it at that time furnished all the fuel required for puddling, heating, and making steam at the rolling-mill of Messrs. Rogers and Darchfield. Between 1874 and 1881 the use of natural gas was introduced at various other establishments for puddling and rolling. The use of this new fuel spread so rapidly, that in 1887 there were ninety-six rolling-mills and steel works either wholly or in part using natural gas; and Mr. Swank states that at the present time nearly one-fourth of all the establishments of this kind in the United States are thus supplied with fuel. The territory in which are located iron and steel works using natural gas extends as far east as Johnstown, seventy-nine miles east of Pittsburg. Some gas is used in Ohio, piped from wells in the adjacent region of Pennsylvania, and some is also obtained from local wells. Pennsylvania gas is also used to a limited extent in West Virginia. Natural gas has also been obtained at various localities in Indiana.

According to Mr Ashburner, of the Pennsylvania Survey, there were, in 1885, no less than 1,500 dwellings, 66 glass factories, 34 rolling-mills, and 45 other industrial establishments supplied with natural gas in the city of Pittsburg alone; and this was estimated as representing or displacing an amount of coal equal to ten thousand tons a day. In the following table is given the amount and value of the coal displaced by natural gas throughout the country, as nearly as it could be estimated, for the years 1885–87:—

	Amount.	Value.
1885	2,796,000 tons.	$4,857,200
1886	5,761,000 "	10,012,060
1887	8,800,000 "	15,838,500

The rapid increase in the amount of natural gas consumed during the past few years is easily seen in the above table. The surpassing importance of Pennsylvania in general, and of the Pittsburg District in particular, as consumers of this kind of fuel, and the progress which has been made in other States in the development of this branch of industry may be seen in the following table, in which the detailed statistics for the year 1887 are given:—

AMOUNT OF COAL DISPLACED BY NATURAL GAS.

Locality.	Coal Displaced.	Value.
Pennsylvania:		
Allegheny County	4,890,000 tons.	$6,846,250
Remainder of Pittsburg District	1,457,900 "	2,415,750
Western Pennsylvania (outside) of Pittsburg District	1,673,100 "	4,487,500
Total Pennsylvania	7,931,000 tons.	$13,749,500
New York	94,600 "	333,000
Ohio	445,000 "	1,060,000
West Virginia	53,500 "	120,000
Indiana	268,000 "	600,000
Illinois	2,500 "	6,000
Kansas	4,466 "	15,000
Elsewhere	4,466 "	15,000
Total	8,804,520 tons.	$15,838,500

The development of the iron and steel business in the United States during the last half century has been as rapid as that of steel, the mining of coal. In 1850 the total production of iron throughout the world was about six million tons, of which fully half was to be credited to Great Britain; that of the United States was about one million tons, or one-sixth of the whole amount. In the years from 1881 to 1887 the total production of pig-iron throughout the world varied between nineteen and twenty-two millions of tons, averaging a little over twenty millions, of which about four-fifths were due to England, the United States and Germany. In the last fifteen years the proportional production of England has gradually declined; for the five years ending 1885 it was very nearly five-twelfths, and in 1887 a very little over one-third of the total. England and the United States together made in 1887 very nearly five-eighths of the total.

Iron and Steel.

In regard to the geographical distribution of special products the Special Agent of the Census of 1880 in charge of this department—Mr. J. M. Swank—makes the following statement:

"A glance at the statistics for 1880 shows that New England now makes but little pig-iron, and that the South makes considerable pig-iron and scarcely any rolled iron; that the West has largely embarked in the manufacture of steel by the Bessemer process, while New York cannot boast of a single Bessemer establishment, but has preferred the open-hearth process; that New York makes most of the blooms that are made from ore, and Pennsylvania most of the blooms that are made from pig and scrap-iron; that Michigan is the leading producer of charcoal pig-iron, and now makes no other kind; that West Virginia has developed a remarkably active interest in the manufacture of cut nails; that only five States make Bessemer steel; and two States, Pennsylvania and New Jersey, make nearly all of our crucible steel; and that Pennsylvania has made a greater effort than any other State to manufacture all kinds of iron and steel."

At the close of the year 1887 there were 613 blast furnaces, then either completed or building (not counting any of which had been abandoned), in the United States, and they were thus distributed:

Division.	Subdivision.	Number.	Total.
Atlantic	North Atlantic	315	
	Middle Atlantic	4	
	South Atlantic	6	
			375
Central	Northeastern Central	147	
	Northwestern Central	13	
	Southeastern Central	71	
	Southwestern Central	2	
			233
Cordilleran	Rocky Mountain	2	
	Plateau	0	
	Pacific Coast	3	
			5
	Total	8	613

Blast furnaces.

Of the 613 blast furnaces, 243 were in Pennsylvania, Ohio coming next in order with seventy-eight. In the Northern States there were 459; in the Southern 154, of which forty-four were in Alabama (twenty four completed and twenty building). Of 414 iron and steel rolling mills, 169 were in Pennsylvania, Ohio coming next with fifty five. Of Bessemer and Clapps-Griffiths steel works there were forty three, of which nineteen were in Pennsylvania and six in the Southern States. Of open-hearth steel works there were fifty, of which twenty-seven were in Pennsylvania and two in the Southern States. Of crucible steel works there were forty-one, of which twenty-one were in Pennsylvania, and two in the Southern States.

The production of pig iron and of Bessemer steel ingots and rails in the United States since 1880 is stated in the following table, compiled from the statistics collected by the American Iron and Steel Association:

	1881.	1882.	1883.	1884.
Pig-iron	4,144,253	4,624,323	4,595,510	4,097,868
Bessemer steel ingots	1,374,217	1,514,087	1,477,345	1,375,317
Bessemer steel rails	1,187,769	1,284,065	1,148,709	996,465

	1885.	1886.	1887.
Pig-iron	4,044,526	5,683,329	6,417,148
Bessemer steel ingots	1,519,426	2,269,190	2,936,033
Bessemer steel rails	959,470	1,562,409	2,101,903

From the above table it will be seen that 1882 and 1883 were years of large production, both of iron and steel; that in 1884 and 1885, there was a considerable falling off in the amount of pig-iron made, while the production of steel remained nearly the same; and it will also be noticed that in 1886 there was a large increase in both iron and steel, which increase was continued in 1887—the production of the latter year being more than a million and a half of tons greater than it was in 1884. The increased use of Bessemer steel for purposes other than the manufacture of rails is also clearly indicated in the following table:—

	1882.	1883.	1884.
Production of Bessemer steel	1,514,087	1,477,345	1,375,317
Percentage used in rails	85	78	72

	1885.	1886.	1887.
Production of Bessemer steel	1,519,426	2,269,190	2,936,033
Percentage used in rails	63	78	72

Bessemer Steel.

The production of Bessemer steel was forty-nine per cent. larger in 1886 than it was in 1885, and 29 per cent. larger in 1887 than in 1886. The total number of completed Bessemer steel works in the United States at the close of 1886 was thirty-three, with sixty-nine converters. Pennsylvania in that year made fifty nine per cent. of the ingots produced: Illinois, 21; and other States, 20.

The rapid growth and present importance of the steel industry in the United States will be appreciated on examination of the following table, in which the amount of steel of all kinds, produced is given for each fifth year from 1870 on, an also for the years 1886 and 1887, in tons:

Year.	Bessemer steel ingots.	Open-hearth steel ingots.	Crucible steel ingots.	All other steel.
1870	37,500	1,339	31,250	
1875	335,283	8,080	35,479	11,256
1880	1,074,261	100,950	44,004	7,558
1885	1,519,430	333,775	57,369	1,514
1886	2,269,191	218,973	71,972	2,566
1887	2,936,033	522,009	75, 76	5,593

Year.	Total.
1870	70,089
1875	389,799
1880	1,227,334
1885	1,711,819
1886	2,562,502
1887	3,536,171

Production of rails.

The production of rails of all kinds in the United States is given in the following table for the year 1887, in which the manufacture of Bessemer steel rails began, and also for 1870 and for each succeeding fifth year, as well as for the years 1886 and 1887:

Year.	Bessemer steel rails.	Open-hearth steel rails.	Total steel rails.	Iron rails, all kinds.
1867	2,277		2,277	410,319
1870	30,357		30,357	523,214
1875	260,000		260,000	447,900
1880	852,496	12,156	864,352	441,858
1885	959,471	4,279	963,750	13,227
1886	1,570,503	4,091	1,579,594	21,142
1887	2,119,903	17,145	2,119,048	20,591

Year.	Total iron and steel.
1867	412,596
1870	553,571
1875	707,699
1880	1,313,211
1885	976,977
1886	1,600,536
1887	2,139,959

The ores of iron are widely disseminated over the United States. General and are of very different qualities; but there are certain regions survey of of greatly predominating importance, and certain geological horizons or formations from which much the larger portion of these kinds of ores is derived. To each of these a few words of description may iron ore. be devoted.

The great coal field of the Central United States is surrounded on the north, east and south by the uplifted older rocks of the Wisconsin—Michigan, the Appalachian and the Ozark regions.

This basin and its border contain the fuel and the ore on which and with which the material prosperity of the United States of the twentieth century must be built. It becomes, therefore, of importance to obtain a general survey of the distribution of the various kinds of iron ore both geographically and in the geological column.

On the extreme edge of the border that inclosos the coal basin we find in the north and east the Archæan with its immense development of magnetic and specular ores. Next within this and overlying it is the Canadian-Cambrian series, the substructure of the first great longitudinal valley of the Appalachians extending from Canada to Alabama. This valley is not less remarkable for its enormous wealth in limonite ores than for the fertility and durability of its soil. Still farther inward the shales of the Clinton age mark a belt of hematite ore extending from central Alabama to and through eastern New York, and thence westward across the State. The belt thus outlined will be seen, on the map, to have a breadth of from fifty to over one hundred miles. Within it, but less persistent in longitudinal representation, are deposits of iron ores occurring—some here, some there—in strata of almost every age from the Archæan to the Coal Measures, and the great coal field thus iron-bound, is itself rich in carbonate ores, generally occurring either as clay iron stone, or as black band, or in places as a ferriferous limestone altered to limonite. The map does not attempt to represent the actual distribution of the ores of the Coal Measures, but only the areas within which they were sampled for the investigation.

On the South the Archæan rocks come to the surface only in eastern Missouri, and they here exhibit a great development of magnetic and specular ores. But they occupy only a small area in the broad iron-bearing belt on the map that stretches with a breadth of one hundred miles or more northwesterly from Alabama to western Missouri. With the exception of the Missouri Archæan ores this belt consists wholly of later ores, viz: specular and limonite ores of the Cambrian in Missouri, and limonites on the Subcarboniferous limestones of Missouri, Tennessee and Kentucky.

On the North, far removed from the coal field, are the extensive and numerous deposits of rich specular and magnetic ores of the Huronian in northern Minnesota and northern Michigan. Farther eastward the northern border is represented beyond our field of investigation by ores of different kinds, but especially Archæan in that part of the territory of the Dominion of Canada lying north of the great lakes.

Iron in various mineral conditions, and especially as an oxide, is among the most widely disseminated of the elements. It is a base with a strong affinity for the acids most frequent in the waters circulating in the upper crust of the earth, viz: carbonic, sulphuric and the organic acids. It also has a stronger affinity for oxygen, and in the presence of this it forms the nearly indestructible and—in the ordinary processes of Nature—in the absence of organic matter, almost insoluable sesquioxide. As a sesquioxide, in the presence of organic matter, it provides the oxygen for decay, and its residuary protoxide is itself dissolved by the resulting organic acid, and enters into circulation. If the laboratory is a marsh or pond, the iron protosalt is reoxidized at the surface of the water and returns to the bottom as the higher oxide to again part with part of its oxygen and again to be dissolved as a protosalt, and this is continued until the organic matter is consumed: then the iron accumulates on the bottom as a hydrated oxide, or limonite, or "bog ore."

Rock strata containing organic matter and diffused iron oxide have lived through similar processes, except that the iron, after furnishing its oxygen to the decaying matter and forming a solu-

able protosalt with the resulting organic acid, has entered into more extended circulation.

The most common solvents of iron in Nature are carbonic acid and sulphuric acid; the latter becomes an important agent in moving and concentrating iron, under certain circumstances, as in solfataric action and in the oxidation of pyritiferous rocks like the Devonian shales of Pennsylvania and Virginia. But doubtless carbonic acid is the most general agent. Besides arising from the oxidation of organic matter confined in sedimentary strata, it enters the earth as an accessory of rain water, and more is taken up by the water from the decaying vegetable mould; it is also liberated in depth from limestone by the action of chemical processes and enters the ascending currents. However formed, it becomes an accessory constituent of the water that permeates the rocks, and alone, or in connection with other agents, it decomposes the silicates and carries off the iron as a bicarbonate. It follows the channels of flow until it reaches an arresting cause. One such arresting cause, of ultimately great economic importance, is the carbonate of lime in limestones and dolomites and calcareous sandstones, resulting in the replacement of lime by iron; another of equal importance is oxygen, whether at the surface, where the soluable iron protosalt, emerging in spring water is oxidized to a limonite, or in caverns or small cavities, where it is oxidized, and, parting with its acid, is deposited in successive thin films to form stalactitic and mammillary masses of hydrated sesquioxide; therefore when we consider the general diffusion of iron in both detrital and crystalline rocks, in all sediments and all eruptions, and remarkable reciprocating relation in the most common and essential processes of Nature, it is not strange that we should find it represented by local accumulations in the rocks of every geological age.

The annexed table, published by Mr. Swank, shows the production of iron ore in tons in the leading ore-producing districts for the years 1886, 1887:—

	1886.	1887.
Lake Superior mines of Michigan and Wisconsin	3,263,961	4,344,651
Vermilion Lake mines of Minnesota	304,396	394,252
Missouri mines	379,776	427,785
Cornwall, Pennsylvania	688,054	667,210
New Jersey mines	500,501	547,889
Chateaugay mines, New York	214,800	219,390
Crown Point mines, New York	60,084	64,940
Port Henry mines, New York	298,868	428,522
Other Lake Champlain mines, New York	15,000	29,000
Hudson River Ore and Iron Company, New York	75,000	142,422
Tilly Foster mines, New York	17,728	14,316
Forest of Dean mines, New York	18,000	21,164
Salisbury region, Connecticut	36,000	30,000
Cranberry mines, North Carolina	24,106	45,032
Tennessee Coal and Iron and Railroad Company's mines	81,650	102,601
Ohio (whole State)	344,484	377,465
Alleghany County, Virginia		150,000
Preston County, West Virginia		15,408
Calhoun, Etowah, and Shelby counties, Alabama		129,000
Total of the above districts	6 322,408	8,151,047

American imports of iron and steel.

AMERICAN IMPORTS OF IRON AND STEEL.—It has been sufficiently shown that this country is a large producer of iron and steel. The statistics of our production of these articles do not, however, show the magnitude of their consumption by our people. We export only very small quantities of iron and steel, principally in the form of machinery, but have been large importers of iron and steel in all forms, which we have consumed in addition to the large quantities we have ourselves produced. Our imports of iron and steel during the last fifteen calendar years have been as follows. The quantities of pig, bar, band, plate, and sheet iron, rails, old iron, and tin plates, are given for every year mentioned and for 1882 and succeeding years the quantities of other iron and steel which could not be obtained for preceding years are added:

Years.	Long tons.	Years.	Long tons.
1871	1,141,933	1879	769,984
1872	1,183,066	1880	1,886,919
1873	640,858	1881	1,180,749
1874	301,647	1882	1,192,296
1875	239,712	1883	691,330
1876	204,211	1884	654,696
1877	211,408	1885	578,478
1878	211,102		

Gold and silver.

The production of gold in the Southern States rose to nearly a million of dollars a year in a few years after the first mining excitement began in that region. This was in 1833 and 1834. Then there was a falling off to about half that; but from 1842 on, until the time of the discovery of gold in California by the Americans, there was a rise in the product of the Southern Appalachian region to nearly a million a year (1842-48).

The discoveries of the precious metal in California have already been noticed. By the end of the year at the beginning of which the first nugget of gold had been picked up in Sutter's mill-race on the American River (1848), miners were at work along the western slope of the Sierra Nevada from the Tuolumne to Feather River, a distance of full a hundred and fifty miles. There are supposed to have been not less than fifty thousand men mining for gold at the close of the year 1850; and those who had good opportunity for observing estimate the number thus engaged during the years 1852 and 1853 at not less than one hundred thousand. At first some assistance was had from the aboriginal population; but in general there was no hired help, each man working for himself, or a small number of persons owned the same claim and mined together as joint partners. The earliest washings were along the rivers, on the "bars," or gravel accumulations along the sides or on the beds of the streams, and in the "gulches," or ravines leading down the steep sides of the valleys, or canons, through which these rivers flow. Soon the rivers themselves were partially turned from their courses by means of wing-dams, or entirely carried to one side of their natural channels by 'flumming," or building artificial channels of timber. The sands and gravels thus exposed were the most productive "placers"; and those who first got hold of the rich bars on the American, Yuba, Feather, Stanislaus, and other smaller streams in the heart of the gold region made sometimes from one to five thousand dollars a day per man. These very rich spots were, however, soon worked out, and it might be days or weeks before another of equal richness was found. From the spring of 1848 to 1851 nearly all the mining was of the character thus indicated, that in the river-beds being called "wet-diggings," and that in the ravines or gulches adjacent to the rivers "dry-diggings."

Yield of gold in California.

The yield of gold in California during the ten years of its greatest productiveness—namely, from 1850 to 1859 inclusive—has been estimated as averaging as high as 58½ millions of dollars a year. During the pentad, 1860-64, there was a rapid falling off in the yield, which may be accounted for not only by the approaching exhaustion of the river diggings, but also by the fact that the discovery of the Comstock Lode turned the attention of the miners in the direction of Nevada, whither great numbers of stamp-mills were transported bodily in the course of the years 1861 and 1862, these mills being such as had been worked in California with little or no profit to the owners.

From 1865 on, the gold mining business in California assumed a certain degree of permanence; at least, the yield of the precious metal became, for a number of years, pretty nearly stationary, never falling below fifteen millions, nor rising quite as high as twenty millions; the average for the fifteen years, 1865-79, being about seventeen millions. The figures for the years 1881-87, as given in the reports of the Director of the Mint, are as follows:—

1881	$18,200,000
1882	16,800,000
1883	14,120,000
1884	13,000,000
1885	12,700,000
1886	14,725,000
1887	13,400,000

The most powerful impulse to mining operations, and the immediate cause of a somewhat lengthy period of wild excitement and speculation, was the discovery and successful opening of the so-called Comstock Lode—a metalliferous deposit, which, considering all the circumstances and conditions connected with it, may be truthfully said to be the most interesting one ever discovered. The conditions which have given this lode its pre-eminence are; the great extent and depth of its workings; the rapidity with which they have been carried on; the large amount of the precious metals produced; the extraordinary temperature encountered; and, finally, the very full record which has been kept of the facts observed.

The Comstock Lode.

The Comstock Lode lies on the east slope of the Virginia Range, a northeasterly offshoot from the range of the Sierra Nevada. The region is a desert, supporting scarcely any vegetation besides the sage brush. Potable water is found only in quantities too small to supply a settlement, and the town now depends for its supply on a point in the Sierra Nevada, thirty miles away. The mines were first opened in this inhospitable region in 1859, but have since been pushed with such vigor that their product is supposed seriously to have affected the silver market of the world. They have produced about $315,000,000 worth of bullion, of which $175,000,000 was silver (at the rate of one ounce equals $1.2929). Of the total yield, $115,871,000 has been disbursed in dividends.

The last great ore body discovered yielded $111,707,609 39, of which $74 250,000 was paid in dividends. The number of men employed in the mines on June 1, 1880, was 2,770, and the sum annually disbursed in wages is now $4,550,000. The aggregate horse-power of the machinery of the mines is 24,130. The total length of shafts and galleries exceeds 150 miles, and the greatest depth reached is above 3,000 feet.

The gold regions of the United States are divided into three sections, the Pacific, Rocky Mountain and Eastern. These three great divisions will be taken up and treated in order.

STATISTICS OF THE PACIFIC DIVISION.

California.

In production of gold California still holds the first place. The vast deposits of auriferous gravel continue to yield largely, though their final exhaustion in view of the enormous hydraulic operations now being prosecuted, is to be looked for at no distant day. Previous to the discovery of the Bodie district the placer mines furnished more than two-thirds of the total gold output of the State; but the large yield of that district, amounting to over two and three-quarter millions in gold during the years in addition to the considerable silver product, has placed the deep mines about on a par with the placers in point of productiveness.

California furnishes 71.47 per cent. of the total placer product of the United States, and 40.09 per cent. of the total gold product of the deep mines, or 51.38 per cent. of the gold product of the country (from all sources).

Nevada.

The production of this State shows a considerable decline, as compared with that of the preceding six years. This is not due to

any general falling off in the prosperity of the mining industry of the State, but to the decrease in the yield of the leading source, the Comstock Lode.

The bullion product of Nevada represents an average of $44 16 gold, $112.29 silver, and $156.45 gold and silver for each square mile of its area. In this respect Nevada is surpassed by Colorado, the figures for which are $25,98 gold, $159.22 silver, and $185.20 total.

Utah and Arizona. The bullion product of Utah is remarkably steady, varying latterly but little from year to year, while a marked impulse has been given to the mining industry of Arizona by the fine showing of the new Tombstone district, in Pima county.

Idaho. The deposits of Idaho bullion (so far as it is possible to segregate them, a very large portion having passed through private refineries and thus losing their identity) up to the close of the fiscal year ending June 30, 1880, are stated by the director of the mint to have been $24,137,417 gold, $727,296 silver, and $24,864,713 total. This amount is far less than the actual output up to that date, vague unofficial estimates placing the total yield as high as $60,000,000.

Of the gold product for the census year 1880, 59.42 per cent. is from placers and 40.58 per cent from the deep mines. Idaho furnishes 7.32 per cent. of the placer output of the United States, 2 18 per cent. of the deep mine gold, and 4.43 per cent. of the total gold; 1.13 per cent of the silver, and 2 60 per cent. of the entire product of the precious metals in the whole country. As a gold producer the territory ranks sixth, and in silver, seventh. The average yield per square mile is $17.45 gold, $5.30 silver, and $22.75 total. In this respect Idaho stands fifth in point of gold, seventh in silver, and sixth in developed richness in gold and silver.

Oregon. Oregon is one of the oldest of the western mining States, the discovery of gold within its limits having followed closely upon that in California. Its output has never been very large in comparison with the yield of its neighbor State, but although the mines have become secondary to its agricultural resources in point of importance, they still furnish occupation and profit to many of its inhabitants. The quartz veins of Baker county, in the eastern portion of the State, adjoining Idaho Territory, continue to yield the larger portion of the total deep mine product of this State. The prevailing type of the Oregon ores is a free gold quartz, though rebellious gold ores, requiring special treatment, are found in some localities, and a small amount of silver is produced in Grant county.

Washington. Of the small product reported from the deep mines of Washington, nearly the whole comes from Peshaston district, in Yakima county, where gold quartz mining is conducted on a small scale.

The Upper Columbia placers furnish over one-half the total placer yield of the State.

Alaska. This vast territory, occupying an area of over half a million square miles, is for the most part still an unexplored region. The small amount of prospecting which has been done has developed the fact that Alaska contains many gold bearing localities, none of which however, have yet yielded any considerable output.

STATISTICS OF THE DIVISION OF THE ROCKY MOUNTAINS.

Colorado. From an average annual production of only three or four millions, Colorado has suddenly risen to the first rank as a producer of the precious metals among the States and Territories for gold and silver combined, as well as for silver alone, while for gold it holds the fourth rank. In the relation of production to area it holds the first rank likewise for gold and silver combined, and for silver alone, and the third for gold alone. In the relation of production to population, however, it ranks only third for gold and silver together, second for silver alone, and sixth for gold alone. The total value of its product during the census year in gold and silver was, in round numbers, nineteen and a quarter millions dollars; and, if we add to this the value of lead and copper in crude metal produced, we have a total value of metallic product of twenty-two and three-quarters million dollars.

Dakota. The metallic production of Dakota is derived from the region of the Black Hills, and in greater part from Lawrence county, where free milling gold quartz ores of low grade are reduced in amalgamating mills of great size.

Montana. Montana has within its boundaries the elements favorable to a large production of the precious metals—rich and varied ores and abundant fuel, both coal and wood. As yet, however, owing to lack of development and want of sufficient transportation facilities, it has not taken its proper rank as a producer.

New Mexico. The mines of New Mexico have been attracting much attention; but their practical development is awaiting the completion of the railroads which are about to intersect it.

Wyoming. Wyoming is surrounded on three sides by important mining regions, but has as yet developed but few mines within its borders.

The following table shows the yield of the States of the Eastern division, for the year 1880: —

EASTERN DIVISION.

Alabama	$1,300	.....	$1,300
Georgia	81,030	$332	81,362
Maine	3,000	7,200	10,200
Michigan	.....	25,858	25,858
New Hampshire	11,000	16,000	27,000
North Carolina	118,955	140	119,095
South Carolina	13,041	56	13,097
Tennessee	1,998	.....	1,998
Virginia	9,322	.....	9,322
Total	239,646	$49,586	$289,232

The relative quota contributed by each of the three great arbitrary divisions into which the country has been apportioned is indicated in the following table:—

Pacific Division	$25,261,828	$21,143,881	$46,405,709
Division of the Rocky Mountains	7,878,189	19,917,490	27,795,679
Eastern Division	239,646	49,586	289,232
Total	$33,379,663	$41,110,957	$74,490,620

The following table shows the production of gold and silver for each State and Territory during the year 1885: —

Alaska	$300,000	$2,000	$302,000
Arizona	880,000	3,800,000	4,680,000
California	12,700,000	2,500,000	15,200,000
Colorado	4,200,000	15,800,000	20,000,000
Dakota	3,200,000	100,000	3,300,000
Georgia	136,000	.....	136,000
Idaho	1,800,000	3,500,000	5,300,000
Montana	3,300,000	10,060,000	13,360,000
Nevada	3,100,000	6,000,000	9,100,000
New Mexico	800,000	3,000,000	3,800,000
North Carolina	152,000	3,000	155,000
Oregon	800,000	10,000	810,000
South Carolina	43,000	.....	43,000
Utah	180,000	6,750,000	6,930,000
Washington	120,000	70,000	190,000
Texas, Alabama, Tennessee, Virginia, Vermont, Michigan and Wyoming	90,000	5,000	95,000
Total	$31,801,000	$51,600,000	$83,401,000

GOLD AND SILVER PRODUCTION OF THE DIFFERENT STATES FOR THE YEAR 1887.

State or Territory.	Gold.	Silver. (Coining value.)	Total.
Alaska	$675,000	$300	$ 675,300
Arizona	830,000	3,800,000	4,630,000
California	13,400,000	1,500,000	14,900,000
Colorado	4,000,000	15,000,000	19,000,000
Dakota	2,400,000	540,000	2,940,000
Georgia	110,000	500	110,500
Idaho	1,900,000	3,000,000	4,900,000
Michigan	26,000	35,000	61,000
Montana	5,230,000	15,500,000	20,730,000
Nevada	2,500,000	4,900,000	7,400,000
New Mexico	500,000	2,300,000	2,800,000
North Carolina	225,000	5,000	230,000
Oregon	900,000	10,000	910,000
South Carolina	50,000	500	50,500
Utah	220,000	7,000,000	7,220,000
Washington	150,000	100,000	250,000
Other States and Territories	20,000	250,500	270,500
Total	$33,136,000	$53,941,800	$87,077,800

PRODUCTION OF GOLD AND SILVER IN THE UNITED STATES FOR THE YEARS 1880–1887.

Year.	Gold.	Silver.	
		Coining Value.	Commercial Value.
1880	$36,000,000	$39,200,000	
1881	34,700,000	43,000,000	
1882	32,500,000	46,800,000	
1883	30,000,000	46,200,000	
1884	30,800,000	48,800,000	$42,000,000
1885	31,800,000	51,600,000	42,504,447
1886	35,000,000	51,000,000	39,445,312
1887	33,000,000	53,357,000	40,450,000

The annexed table still further illustrates this branch of the subject by showing the consumption of the precious metals in the United States in the industrial arts, as reported by the Mint, for the years 1880, 1881, 1883 and 1885:—

	Gold.	Silver.
1880	$ 8,634,193	$3,464,169
1881	10,086,723	3,388,421
1883	14,459,464	5,556,530
1885	11,152,120	4,598,413

Quicksilver.

Nearly all the quicksilver produced in the United States comes from California. The total produce of the Californian mines, during the years 1880–1887, has been as follows:—

1880	59,926
881	60,851
882	52,732
1883	46,725
1884	31,913
1885	32,073
1886	29,981
1887	33,825

No new discoveries of localities of importance have been made during the past few years, and the mines which are now worked in California have been of late years in a rather depressed condition, owing to the low price of the metal, the increased expense of production consequent on the greater depth of the workings, and the growing scarcity of the ore. No quicksilver mine earned or paid any dividend in 1885; but since that time there has been a rise in the price of the metal, and a somewhat increased activity in its exploitation. Two mines paid dividends in 1886: the New Almaden, $118,010.75, and the Ætna, $20,000; the former also paid, in 1888, $282,663. A considerable portion of the quicksilver mined in California is used in that and the adjacent Cordilleran States, a part goes to Mexico, and there is a small and varying export to China. The low price of silver has materially affected the profits of exports to foreign countries.

Tin.

The ore of tin has been discovered in several localities in the United States, and there have been many attempts made to open mines in various parts of the country; but up to the present time the amount of this metal produced has been entirely insignificant. Among the localities in the Appalachian region where mining for tin has been attempted are, Winslow, Maine; Jackson, New Hampshire; one on the northwestern slope of the Blue Ridge, in Rockbridge county, Virginia; and one near Ashland, in Clay county, Alabama. The veins in the first two localities mentioned are unquestionably too small for successful working. In regard to the other places, it does not yet seem to be known whether the conditions there existing are sufficiently favorable to warrant the expectation that they will become profitable. The fact that there are no apparent indications—judging from the descriptions which have been published—of superficial deposits which could be successfully streamed for tin seems a strong reason for believing that in no one of these localities could there be a successful competition carried on with the stanniferous districts of the East Indies and of Australia, where the detrital ores of tin exist in the greatest abundance. Of course tin mining could be made profitable in this country if a sufficiently high duty were laid upon this metal.

The stanniferous region from which the most has been expected is the Black Hills of Dakota, at a locality of about twenty miles southwest of Rapid City.

According to the official report of Mr. A. Williams, Jr., on the mineral resources of the United States, for the years 1883–84, a large amount of money has been expended in opening and prospecting the Etta mine, and in erecting mills and reduction works.

So far as known, however, up to January, 1889, there has been no production of tin of commercial importance in Dakota, nor have regular shipments of this metal from that region been begun. Tin ore has also been found in the southern part of the State of California, and several attempts have been made to put the mines upon the market. The observations of the present writer in this region in 1860, did not lead him to the conclusion that it was likely ever to become of importance for its production of this metal.

Zinc.

Zinc has become within the past few years an important article of production in the United States.

The business of making metallic zinc had not become of any importance previous to 1875. Since that time it has increased at a moderate and pretty uniform rate.

The latest and most reliable statistics of zinc are those given by Mr. C. Kirchhoff, Jr., in the "Mineral Resources of the United States for 1887," as follows, in tons:—

State.	1882.	1883.	1884.	1885.	1886.	1887.
Illinois	16,250	14,992	15,749	17,345	18,818	19,892
Kansas	6,778	8,044	7,017	7,591	7,975	10,674
Missouri	2,232	5,118	4,669	4,176	5,241	7,732
Eastern and Southern States	5,087	4,768	7,019	7,216	6,037	6,648
Total	30,145	32,922	34,414	36,528	38,071	44,946

The production of zinc in the United States for the year 1888 is estimated at 50,800 tons—a moderate increase over the preceding year. This country furnishes, therefore, at the present time a little over one-sixth of the total production of the world, which has increased since the beginning of the present decade from about 225,000 to very nearly 300,000 tons.

Lead mining.

For a long term of years the production of lead in the United States was limited to the Mississippi valley. The deposits occur in two districts—one, the so called "Upper Mines," covering an area of three to four thousand square miles included within the States of Wisconsin, Iowa, and Illinois; the other, the "Lower Mines," in Southeastern Missouri.

The mode of occurrence of the galena in both the Upper and Lower Mines of the Mississippi Valley is extremely simple. In the Upper Mines the geological age of the group of strata in which this ore is found is Lower Silurian. In these mines the principal lead-bearing rock is a crystalline dolomite, from 250 to 275 feet in thickness where not partially removed by erosion. The upper portion of this formation is somewhat argillaceous; the middle, a very pure heavy-bedded dolomite; the lower, a similar rock, but containing numerous cherty or flinty masses. This group of strata is locally known as the Upper Magnesian Limestone. It is separated from a rock of very similar lithological character, called the Lower Magnesian Limestone, by three groups of strata, which are commonly designated as the Blue Limestone, the Buff Limestone, and the St. Peter's Sandstone. The first of these is a thin-bedded, highly fossiliferous, purely calcareous rock; the second, a heavy-bedded argillaceous dolomite; the third, a nearly chemically pure quartzose sandstone. The Blue Limestone is from fifty to seventy feet in thickness; the Buff, fifteen to twenty; and the Sandstone, from eighty to a hundred. The Blue and the Buff limestones are of about the same geological age as the Trenton and Black River groups of the New York Geological Survey.

Upper and lower mines.

The yield of the Upper Mines is gradually diminishing; and this will continue to be the case, since the extent of the lead-bearing rock is limited, and the vertical range of the crevices confined to a moderate thickness, there being no probability that paying mines will be discovered in the Lower Magnesian Limestone.

The lead ores of Missouri occur, and almost always in association with those of zinc, in three somewhat distinct districts: in the southeastern portion of the State, where also nickel and cobalt ores are found; in the central, and in the southwestern. The mines of the Southeastern district are in the Lower Silurian.

The numerous lead mines opened and worked in various States situated in the Appalachian region, from Maine to North Carolina, have nearly all proved unsuccessful ventures. A few have for a short time produced a moderate supply of this metal; one or two have been quite permanent, although yielding but a very small amount of lead; while much the larger number have proved entire failures.

While the Mississippi Valley lead mines have furnished, of late years, but a small proportion of the world's supply of this metal, the United States has largely increased its product; so that, from 1880 on, this country has furnished a quarter or more of the entire amount of lead smelted in the world.

Yield of metallic lead in United States.

The total yield of metallic lead throughout the United States for the years 1873–87 is given (in tons) in the following table, prepared by Mr. Kirchhoff.* The desilverized lead of the Cordilleran States is separated from the non-argentiferous of the Mississippi Valley, and its percentage of the total stated. The table as here presented extends back to the time when the argentiferous lead ores of the country began to be of importance:—

Year.	Desilverized Lead.		Non-Argentiferous Lead.	Total.
	Amount.	Per Cent. of Total.		
1873	17,999	47.7	19,983	37,982
1874	.....	.....	.....	46,410
1875	31,168	58.5	22,082	53,250
1876	33,615	58.8	23,590	57,205
1877	45,310	62.0	27,815	73,125
1878	57,401	70.6	23,902	81,303
1879	57,723	69.7	25,116	82,839
1880	62,620	71.7	24,724	87,344
1881	77,067	73.7	27,473	104,540
1882	92,715	78.3	25,907	118,652
1883	109,668	84.8	19,465	128,533
1884	107,112	86.4	17,796	124,908
1885	95,926	83.0	18,728	114,654
1886	102,526	85.0	18,571	121,097
1887	121,028	84.3	22,454	143,482

The Engineering and Mining Journal estimates the production of lead in the United States for the year 1888 at no less than 168,700 tons. It is an interesting fact that Idaho is beginning to be of considerable importance as a lead producing State. The principal mines are in the Cœur d'Alene district.

Non-metalliferous minerals.

To other very important articles—such as lime, cement, and building-stone—only brief allusion can here be made, since their mode of occurrence is so varied, and the manner in which they are utilized so irregular, that they hardly come within the scope of the present work. Only very imperfect statistics could be obtained in regard to such materials as lime and building stones, of which the use is so wide-spread and so little under possible control. According to the estimates of the officer in charge of the division of Mining Statistics of the United States Geological Survey, the value of the lime and building-stone used in the country in the year 1887 was, for each of these articles, greater than that of the petroleum produced. The item of coal alone constitutes nearly seven-tenths of the value of the non-metalliferous minerals mined; and the five items of coal, petroleum, natural gas, building-stone, and lime together make up fully nineteen-twentieths of the sum total. Other important articles are: salt, of the produce of which in 1887 the value was $4,093,846; cement, $5,186,877; limestone for flux in the iron manufacture, $3,226,200; phosphate-rock, $1,836,818. The importance of the salt manufacture in the United States is so

*Mineral Resources of the United States, for the year 1887.

great that space may be found here for a few remarks on the geological mode of occurrence of salt, and the geographical distribution of the salt industry.

The common salt of the world is obtained for use in four different ways; namely, the evaporation of the ocean water, the evaporation of the water of saline lakes, the evaporation of saline water or brine obtained by boring, and the mining of solid or rock-salt. By each of these methods salt is, or has been, produced in the United States; but the third of these is at present by far the most important source of supply of this substance in this country.

In the early history of the country the salt used was in part imported from England, and in part produced by the evaporation of sea water on the islands adjacent to the coast in a low latitude, and especially Turk's Island.

Copper. The present sources of supply for copper in the United States are chiefly the Lake Superior region and the Territories of Montana and Arizona. The produce of the other States is comparatively insignificant.

The mines of Lake Superior, of the date of the opening of which mention has already been made, are of a peculiar character. From these mines only is copper taken exclusively in its native state.

The "Cliff Mine," on Keweenaw Point, which was worked from 1845 to 1872 to a depth of nearly 1,500 feet, is of historical importance in the development of the mining industry of the country as being the first permanent deep mine worked, and as being the first mine of any ore, other than that of iron to pay regular dividends. The Minnesota mine, near the Ontonagon river, was another one of interest, and, like most of those to the west of Keweenaw Point, of a somewhat different character from that of the Cliff mine, since the cupriferous lode ran parallel with the formation instead of across it. These longitudinal occurrences are, apparently, intermediate in character between contact deposits and segregated veins.

The Lake Superior region, soon after it was first opened, in 1845, began to produce largely and for many years it supplied from seven to nine-tenths of the copper furnished by the United States.

The growth in the production of copper in the United States compiled up to 1885, inclusive from the best data available, is shown in the following table. It proves in a striking manner how preponderating was, until the past few years, the influence of the Lake Superior district; and again of one great mine in it, the Calumet and the Hecla, for more than a decade. In order to point out more clearly how preponderating has been the output of the Lake district from 1867 to 1880, a column has been added giving its percentage of the total product from year to year. It should be stated that the yield of copper from pyrites is not here included.

Production of copper in the United States from 1845 to 1885, inclusive.

Years.	Total production.	Lake Superior.	Calumet and Hecla.	Percentage of Lake Superior of total product.
	Long tons.	*Long tons.*	*Long tons.*	
1845	100	12	.....	12.0
1846	150	26	.....	17.0
1847	300	213	.....	71.0
1848	500	461	.....	92.5
1849	700	672	.....	96.0
1850	650	572	.....	88.0
1851	900	779	.....	86.6
1852	1,100	792	.....	72.0
1853	2,000	1,247	.....	64.9
1854	2,250	1,819	.....	71.1
1855	3,000	2,593	.....	86.4
1856	4,000	3,666	.....	91.6
1857	4,800	4,255	.....	88.7
1858	5,500	4,088	.....	74.3
1859	6,300	3,905	.....	62.3
1860	7,200	5,388	.....	74.8
1861	7,500	6,713	.....	89.1
1862	9,000	6,065	.....	67.4
1863	8,500	5,797	.....	67.0
1864	8,000	5,576	.....	69.7
1865	8,500	6,410	.....	75.4
1866	8,900	6,138	.....	68.8
1867	10,000	7,814	603	78.2
1868	11,000	9,346	2,276	80.6
1869	12,500	11,886	5,497	95.1
1870	12,000	10,492	6,277	87.2
1871	13,000	11,942	7,242	91.9
1872	12,500	10,961	7,215	95.7
1873	15,500	13,433	8,414	87.3
1874	17,700	15,527	8,984	87.6
1875	18,000	16,089	9,586	89.4
1876	19,000	17,085	9,683	88.9
1877	20,000	17,422	10,475	82.9
1878	21,500	17,719	11,272	82.4
1879	23,000	19,129	11,728	83.2
1880	27,000	22,264	14,140	82.2
1881	32,000	24,363	14,000	76.1
1882	40,467	25,439	14,204	62.1
1883	51,574	26,053	14,788	50.1
1884	63,555	30,916	17,812	48.4
1885	74,053	32,206	21,093	43.5

The following is, in detail, the output of the Lake Superior mines. In the majority of cases it is the official product, based on smelting works returns; in a few instances it is an official estimate of the ingot product based on the known output of mineral. The Mass is the only larger mine in the case of which the ingot was estimated from the published statement of the output of mineral. The total is accurate, therefore, within a few thousand pounds.

The production of Lake Superior copper mines, 1880 to 1885.

Mines.	1880.	1881.	1882.
Calumet and Hecla	31,675,229	31,360,781	32,053,039
Quincy	3,096,263	5,306,848	5,665,796
Osceola	3,383,537	4,179,976	4,176,782
Franklin	2,336,466	2,677,932	3,264,120
Allouez	1,318,471	1,473,007	1,683,567
Atlantic	2,241,105	2,528,009	2,631,708
Pewabic	970,709	1,876,214	1,182,666
Central	2,020,078	1,418,467	1,353,597
Grand Portage	67,860	26,264	757,089
Conglomerate	253,854	386,091	734,249
Mass	517,159	467,684	737,440
Copper Falls	6,615	669,121	587,500
Phœnix	430,000	429,857	537,177
Hancock	3,052	371,897	540,575
Huron	70,285	254,515	364,579
Ridge	223,755	256,000	102,036
Saint Clair	13,195	135,492	87,126
Cliff	78,962	79,382	66,053
Wolverine	.....	.....	25,023
Nonesuch	55,584	119,061	46,450
Isle Royal	79,109	47,358	35,447
Minong	27,407	15,397	21,380
National	.....	.....	17,000
Minnesota	26,033	21,227	10,672
Belt	.....	.....	5,625
Sheldon and Columbia	26,931	10,031	3,299
Aztec	3,757	.....	3,129
Adventure	2,951	7,500	429
Peninsula	.....	.....	.....
Tamarack	.....	.....	.....
Ogima	5,885	16,776	4,207
Concord	10,464	28,819	.....
Evergreen Bluff	10,651	968	.....
Flint Steel River	28,780	4,740	.....
Madison	.....	1,534	.....
Northwestern	916	.....	.....
Ash Bed	.....	24,804	72,636
Centennial	.....	.....	85,554
Sundry companies—tributers	6,056	1,642	.....
Total	49,682,337	54,548,909	57,155,991

Mines.	1883.	1884.	1885.
Calumet and Hecla	33,125,045	40,473,585	47,247,990
Quincy	6,012,239	5,650,436	5,848,530
Osceola	4,256,409	4,247,630	1,945,208
Franklin	3,488,708	3,748,652	4,067,105
Allouez	1,751,377	1,928,174	2,170,176
Atlantic	2,682,197	3,163,585	3,582,635
Pewabic	1,171,847	227,834	.....
Central	1,268,556	1,446,747	2,157,408
Grand Portage	735,598	255,800	.....
Conglomerate	222,117	1,198,691	.....
Mass	653,474	481,396	365,000
Copper Falls	884,100	891,168	1,168,000
Phœnix	512,291	641,001	344,355
Hancock	484,996	562,036	203,037
Huron	750,213	1,927,660	2,252,484
Ridge	60,155	74,030	63,390
Saint Clair	125,225	139,407	.....
Cliff	10,374	28,225	.....
Wolverine	699,622	751,763	328,610
Nonesuch	.....	23,867	28,484
Isle Royal	.....	16,074	.....
Minong	3,582	.....	.....
National	26,000	87,368	102,252
Minnesota	6,226	1,144	12,608
Belt	16,402	130,851	27,433
Sheldon and Columbia	.....	9,828	.....
Aztec	.....	.....	.....
Adventure	.....	4,333	4,000
Peninsula	849,400	1,225,981	.....
Tamarack	7,435	.....	181,669
Ogima	3,000	1,106	12,000
Concord	.....	.....	.....
Evergreen Bluff	.....	954	1,500
Flint Steel River	.....	.....	.....
Madison	.....	.....	.....
Northwestern	.....	.....	.....
Ash Bed	.....	1,517	.....
Centennial	.....	.....	.....
Sundry companies—tributers	.....	21,696	34,000
Total	59,702,404	69,353,202	72,148,172

Montana is next in importance to the Lake Superior district as a copper-producing region. The mines are for the most part in the neighborhood of Butte City, covering an area of two and a half miles long by one mile wide.

Although there has, of late years, been a falling off in the production of copper in Arizona, so that at present this Territory is overshadowed by Lake Superior and Montana, it appears that this is due to its unfavorable situation with reference to a market, rather than to any exhaustion of its cupriferous deposits, which are numerous and important.

There are many localities in the Atlantic States, from Maine to North Carolina, where mining for copper has been attempted, but in few of these has anything like a permanent paying mine been developed. The Vermont Copper Company, located at Vernon, has made, perhaps, the nearest approach to a success of any copper-mining company on the eastern side of the Appalachians, since operations were carried on here for many years uninterruptedly and with moderate profit. This mine was abandoned for a time, but work has lately been resumed. The present high price of this metal has been a great stimulus to mining, and within the past few months many localities which had been abandoned have been taken hold of again by capitalists. This is true for both Eastern and Cordilleran States.

The effect of this excitement will be seen in the annexed table, arranged and condensed from the various official reports on the Mineral Resources of the United States. It affords a comprehensive view of the progress of the copper-mining business in this country during the years 1882 to 1888; the amounts are given in tons:—

States or Districts.	1882.	1883.	1884.	1885.	1886.	1887.	1888.
Lake Superior	25,138	26,653	30,961	32,2 9	35,593	33,693	38,768
Montana	4,043	10,658	19,238	30,267	25,719	35,134	43,973
Arizona	8,029	11,010	11,935	10,137	6,989	7,910	14,821
Other States and Territories	2,957	3,253	2,574	1,428	1,340	4,031	5,563
Total Domestic Copper	40,467	51,574	64,708	74,051	69,809	80,768	103,125
From Imported Ores	446	726	1,276	2,271	2,000	1,674	2,232
Total	40,913	52,300	65,984	76,322	71,809	82,442	105,357

The total production of copper throughout the world for the year 1888 has been estimated at 255,000 tons. Of this amount a little over two-fifths is to be credited to the United States.*

*This is the estimate given in the Engineering and Mining Journal of Jan. 12, 1889, from which the figures given in the preceding table for the year 1888 are taken.

The following table gives the amount and value of metallic products in the United States:

Metals.	1883.		1884.		1885.		1886.		1887.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Pig Iron (tons)	4,595,510	$91,910,200	4,097,868	$73,761,624	4,044,525	$64,712,400	5,683,329	$95,195,769	6,417,148	$121,925,800
Silver (ounces)	35,733,622	46,200,000	37,744,605	48,800,000	39,010,279	51,600,000	30,445,312	51,000,000	41,260,240	53,441,300
Gold (ounces)	1,451,249	30,000,000	1,489,949	30,800,000	1,538,376	31,801,000	1,881,250	35,000,000	1,596,500	33,100,000
Copper (tons)	52,300	18,064,807	65,984	18,106,162	76,322	18,292,999	71,980	16,527,651	82,442	21,052,440
Lead (tons)	128,533	12,322,719	124,908	10,537,042	115,546	10,469,431	121,097	12,667,749	143,482	14,463,000
Zinc (tons)	32,921	3,311,106	34,414	3,422,707	36,328	3,539,856	38,072	3,752,408	44,946	4,732,300
Quicksilver (flasks)	46,725	1,253,632	31,913	936,327	32,073	979,189	29,981	1,000,000	33,825	1,429,000
Nickel (pounds)	58,860	52,920	64,550	48,412	277,904	191,753	214,992	127,157	205,556	133,200
Antimony (tons)	.....	.....	.....	.....	.....	.....	31	7,000	67	15,500
Platina (ounces)	200	600	150	450	250	187	50	100	448	1,838
Aluminium (ounces)	1,000	875	1,800	1,350	3,400	2,550	.....	27,000	.....	74,905
Total	.....	$203,116,859	.....	$186,414,074	.....	$181,589,365	.....	$215,364,825	.....	$250,419,283

Salt.

As will be seen from the table given farther on, the production of salt in Ohio and Virginia, at the present time, is much less than that of Michigan and New York. The advantages which the two last-named States offer are, on the whole, decidedly superior to those of the former; so that the production of Ohio has remained nearly stationary during the last six years, while that of the Kanawha Valley, once the most important salt-producing region in the country, has during that time decidedly decreased, so that at present it is hardly one-tenth as large as that of New York, and less than one-seventeenth of that of Michigan.

The quantity of rock-salt which has been shown by geological observation, or proved by the drill, to exist within the limits of the United States is very large. To the existence of large bodies of this material in Western New York and Michigan allusion has already been made. Salt has also recently been discovered in Kansas, by persons engaged in prospecting for oil and gas, in several localities, and in quantities said to be large. Neither in Kansas nor in any of the States mentioned as important pro-

ducers of salt, has the mining for rock-salt been of any importance up to the present time. A locality where this material occurs in large quantity, and the existence of which has been known for a long time, namely, Petite Anse, an island in Vermilion Bay, on the coast of Louisiana, and which became of importance during the Civil War, is now quite extensively worked, and is the only source from which salt is obtained to any extent in Louisiana. The quantity mined at this locality has risen, from 276,000 barrels in 1882, to over 340,000 in 1887.

Rock salt also occurs in large quantity in various portions of the Cordilleran region, and it has been mined at some localities both for household and metallurgical purposes. A deposit has been long known to exist on the Rio Virgen, in Lincoln County, Nevada, where the salt appears to occur in very large quantity, it being—as is stated—exposed in a canon cut through it for a distance of two miles, the deposit occupying an extensive area, with an unknown, but certainly very considerable thickness. There are also large deposits of this mineral in Utah, especially in San Pete County, near the town of Nephi. Most of the salt used in that State at present, however, comes from the salt-farms around Salt Lake.

The following table gives, in barrels, the amount of salt produced in the United States from 1883 to 1887:*—

States.	1883.	1884.	1885.	1886.	1887.
Michigan	2,894,672	3,161,806	3,297,403	3,677,257	3,944,309
New York	1,619,486	1,788,454	2,304,787	2,431,563	2,353,560
Ohio	350,000	320,000	306,847	400,000	365,000
West Virginia	320,000	310,000	223,184	250,000	225,000
Louisiana	265,215	223,934	299,271	299,691	341,093
California	214,286	178,571	221,428	214,285	28,000
Utah	107,143	114,285	107,140	164,285	325,000
Nevada	21,429	17,857	28,593	30,000	.....
Other States	400,000	400,000	250,000	240,000	250,000
Total	6,192,231	6,514,937	7,038,653	7,707,081	7,831,962

General summary.

The astonishing rapidity with which the mineral and metalliferous resources of the Cordilleran region have been developed during the past thirty years will have been made apparent to the reader who has examined the preceding pages. In 1854 the present writer estimated the total value of the metals produced in the United States at $79,827,000, of which nearly $50,000,000 was to be credited to gold.† The change which has taken place since that time will be seen on examining the following tables, which give, in compact form, results obtained and published by the Chief of the Division of Mining Statistics, of the United States Geological Survey. The first table shows the total value of the non-metallic products of the United States for the years 1882 to 1887, and also the grand total of both metallic and non-metallic products for the same years. The second shows the amount and value of the metallic products of the United States for the years 1882–87. The value of the iron is the spot value; that of the gold and silver, the coining value; that of the copper, lead, and zinc, the value at New York; that of the quicksilver, the value at San Francisco:—

	1882.	1883.	1884.	1885.	1886.	1887.
Metallic	$219,755,109	$203,116,859	$186,414,074	$181,599,305	$215,364,825	$250,419,283
Non-Metallic	228,410,380	242,111,889	220,059,674	249,114,544	243,963,063	285,864,942
Additional unspecified	8,000,000	8,000,000	7,000,000	7,000,000	6,000,000	6,000,000
Total	$456,165,489	$453,240,748	$413,485,748	$428,713,909	$465,327,888	$542,284,225

*By W. A. Raborg, in Mineral Resources of the United States for the year 1887, p. 611. A barrel is five bushels of fifty-six pounds each.

†See Metallic Wealth of the United States, pp. 505–510.

PART III. POLITICAL GEOGRAPHY AND STATISTICS.

POPULATION AND IMMIGRATION.

The first census of the United States was taken in 1790, and there has been one taken every tenth year since that time. The following table shows the absolute number of inhabitants, "excluding Indians not taxed," at each decennial period, and also the rate per cent. of increase during the previous ten years:

Year.	Population.	Percentage of Increase.
1790	3,929,214	
1800	5,308,433	35.11
1810	7,229,881	36.40
1820	9,633,822	33.06
1830	12,866,020	33.55
1840	17,069,453	32.67
1850	23,191,876	35.86
1860	31,443,321	35.58
1870	38,558,371	22.63
1880	50,155,783	30.08
1890	63,241,428 estimate.	

Growth of population.

The effect of the Civil War on the growth of population in the United States is easily seen in the diminished ratio of increase shown by the figures for the decade 1860–1870. With that exception the rate has been extraordinary large and uniform, but less in the decade 1870–80 than in any preceding one. That this rapid growth of the population, due in so large a part to immigration, will continue to be maintained is in the highest degree improbable. The fact that nearly the whole of the more valuable portion of the public lands has been already taken up, as will be seen farther on, can hardly fail to check immigration, although the population, is at present, far from dense, and far from being so large that there is not ample room for a much larger number.

The area embraced within the United States at the time of taking the first census was about eight hundred and fifty thousand square miles, a precise statement of the amount being impossible, owing to the peculiar wording of that part of the treaty in which the northern and western boundaries of the country are defined. The density of the population at that time was about 4.6 persons per square mile, this population being almost exclusively confined to the Atlantic sea-board. At that time not more than five per cent. of the inhabitants of the country lived west of the Appalachian range, the settlements being very closely limited to the borders of the navigable streams. At the time of taking the census of 1850, the boundaries of the United States had become definitely established, the only addition made since that time being the territory acquired in 1853 by the Gadsen purchase (about 47,330 square miles). At that time the average density of the population of the whole country was a little less than eight persons per square mile.

The following table shows the density of the population at the epoch of each census which has been taken during the time when the area of the country remained (with the exception of the purchase of Alaska, not here included) unchanged:—

Year.	Area of U. S.	Population per sq. mile.
1860	3,025,600	10.39
1870	"	12.74
1880	"	16.57

Movement of population.

The movement of the population has, from the beginning, been from the east toward the west, the first settlements having been made on the Atlantic coast, and the emigration to the United States having been almost exclusively from European countries. The Pacific coast had, previously to the annexation of California, received a small number of whites coming from Mexico, and since that time there have been some accessions to the population in that region by means of emigration from China; but the number added from this direction is almost insignificant in comparison with that which has come into the country from the east. Hence the center of population has been moving westward, and the investigations of the Coast Survey and of the Census Bureau have shown that this movement has been in an almost exactly westerly direction, and that the center of population has always remained very near the parallel of 39°. In 1790 it was in the latitude 39° 16′.5, at a point of about twenty-three miles east of Baltimore; in 1880 it

was eight miles west by south from Cincinnati, in latitude 39° 4.1,' having moved westward 457 miles in ninety years. The most southerly point reached was that of 1830, when the center was in latitude 38° 57'.9; the most rapid movement was in the period 1850-60—namely, eighty-one miles, this being due to the rapid transfer of a considerable population from the Eastern to the Pacific States, consequent on the discovery of the gold of California.

The division of the population by sexes, as shown by the census of 1880, was as follows:

Males	25,518,820
Females	24,636,963

The number of females for each 100,000 males in 1870 and 1880 was as follows:

	1870.	1880.
Number of females to 100,000 males	96,514	97,801

Conditions influencing population.

As a natural result of the conditions influencing emigration from the older to the newer States, it is found that females are in excess in the Atlantic States. In the District of Columbia, Rhode Island and Massachusetts, the excess of females over males is five per cent. or more; in Connecticut, New Hampshire, North Carolina, South Carolina, New York, Virginia and Alabama, it is from two and a half to five per cent.; in Maryland, Georgia, New Jersey, Louisiana, Tennessee, Pennsylvania and Maine it is less than two and a half per cent. The States, on the other hand, in which the males are considerably in excess of the females, are those situated in the Cordilleran region, where mining is the chief pursuit, and where the conditions of life are such as are more easily borne by men than by women. In Michigan, Minnesota, Kansas and Nebraska, which are not Cordilleran States, but, which are on the extreme northern, western or southwestern borders of the Central region, the number of females is from eighty to ninety per cent. of that of the males, and New Mexico is in the same category. In the Pacific coast States the number of females is from fifty to eighty per cent that of the males; and the same is true of Colorado and Dakota, which are situated on the eastern borders of the Rocky Mountain, and which are partly agricultural and partly mining States. In those States in which mining and stock-raising are by far the predominating interests, and which are entirely inclosed in the Cordilleras, namely, Idaho, Nevada, Wyoming and Montana, the inequality in the numbers of the sexes is greatest, there being in these territories less than half as many females as males. The same inequality exists in the territory of Arizona.

Of the colored population the census of 1880 showed the number to be 6,580,793 to 43,402,970 whites, or 15,162 colored in every 100,000 whites. The slight increase in this ratio from that given by the census of 1870 (14,528 to 100,000) is believed to be chiefly, if not entirely, due to the imperfection of the census of 1870. The colored population is still, in spite of some slight emigration, almost entirely confined to the former slave States, and in three of them—South Carolina, Mississippi and Louisiana—the colored are in excess of the whites. In Alabama, Florida, Georgia, Virginia, North Carolina and the District of Columbia the colored element runs from fifty to ninety per cent. of the white; in Arkansas, Texas, Tennessee and Maryland, from twenty-nine to thirty-five per cent; in Delaware and Kentucky, from nineteen to twenty-two per cent; in Missouri, Kansas, West Virginia, New Jersey, Ohio, Rhode Island, Pennsylvania and Indiana, from two to 7 per cent; in all the remaining States it is less than two per cent.; and in most of them, especially the more northern ones, it is less than one per cent.

DISTRIBUTION OF THE POPULATION OF THE UNITED STATES IN 1880, BY DRAINAGE BASINS.

Drainage Basin.	Area in sq. miles.	Population.	
		Total.	Per sq. mile.
New England Coast	61,830	3,788,334	61.2
Middle Atlantic Coast	83,020	9,240,897	111.3
South Atlantic Coast	132,040	4,114,563	31.2
Great Lakes	175,340	5,684,147	32.4
Gulf of Mexico	1,725,980	25,884,117	14.9
Total Atlantic	2,178,210	48,717,293	22.4
Great Basin	228,150	227,167	1.0
Pacific Ocean	619,240	1,211,383	1.9
Total	3,025,600	50,155,783	

The distribution of the population in reference to the topographical and climatic features of the country is such as naturally arises from the constant operation of two causes, both acting in the same direction. Emigration and overflow from a more thickly settled region toward one more thinly inhabited takes place, with insignificant exceptions, from the east toward the west. Immigrants arrive from Europe, are landed on the Atlantic coast—about three-fourths at one point, New York—and thence in large part find their way westward in the direction of lands unoccupied or only thinly settled. To the east of the Mississippi the land is almost everywhere exceptionally fertile, and the climatic conditions are, over a large area, as explained elsewhere, very much the same, and on the whole highly favorable. Soon after crossing the Mississippi, we find that this favorable condition of things begins to change. Not only is the immigrant getting farther and farther from his home, but he is finding his environment less and less suited to the development of those conditions which favor the existence of a dense population. Never, by any possibility, can the region of small rainfall, and, in large part, of rugged mountains, extending from the first belt of States beyond the Mississippi to the belt lying directly on the Pacific coast, become a densely populated portion of the country. This dryer region is also the most elevated, as has already been fully explained. The results of the conditions thus indicated are sufficiently shown in the above table and the following:

GEOGRAPHICAL DISTRIBUTION OF THE POPULATION OF THE UNITED STATES IN ACCORDANCE WITH THE TOPOGRAPHICAL FEATURES.

Region.	Population.	Percentage of Total Populat'n
North Atlantic Coast	2,616,882	5.2
Middle Atlantic Coast	4,375,194	8.7
South Atlantic Coast	875,387	1.7
Gulf Coast	1,055,851	2.1
Northeastern Appalachian Region	1,669,226	3.3
Central Appalachian Region	2,344,223	4.7
Region of the Great Lakes	3,049,470	6.1
Interior Table-land	5,716,326	11.4
Southern Appalachian Region	2,695,085	5.4
Ohio Valley	2,442,792	4.9
Southern Interior Table-land	3,627,478	7.2
Mississippi River Belt, south	710,468	1.4
Mississippi River Belt, north	1,991,362	4.0
Southwestern Central Region	2,932,807	5.8
Central Region	4,401,246	8.8
Prairie Region	5,722,485	11.4
Missouri River Belt	835,445	1.7
Western Plains	323,819	0.7
Heavily Timbered Region of the Northwest	1,122,337	2.2
Cordilleran Region	932,311	1.9
Pacific Coast	715,789	1.4

The larger divisions of the country are represented as follows, both as to the aggregate population and its different elements:—

Region.	Percentage of Population.		
	Total	Foreign.	Colored.
Atlantic Plain	29.84	32.74	40.50
Central Valley	53.50	51.62	50.02
Appalachian Region	13.38	8.40	7.22
Cordilleran Region	3.28	7.24	2.26

In regard to the distribution of the population of the United States in towns and cities, and the positions of those centres, the following may be stated:—

In 1790 there were in the country four cities having a population of from 8,000 to 20,000 and two above 20,000, but not one surpassing 75,000 in number. Fifty years later, there were forty-four towns and cities having a population of 8,000 and over, and one of about 500,000. In 1880 there were 286 towns with over 8,000 inhabitants.

The following statement gives the names and population of all the cities having, in 1890, a population of over 100,000:—

Name.	Population in 1890.
OVER 1,000,000.	
New York	1,513,501
Chicago	1,098,576
Philadelphia	1,044,894
OVER 500,000 AND UNDER 1,000,000.	
Brooklyn	804,377
OVER 250,000 AND BELOW 500,000.	
St. Louis	460,357
Boston	446,507
Baltimore	433,639
San Francisco, Cal	297,990
Cincinnati	296,309
Cleveland, Ohio	261,546
Buffalo, N. Y	255,543

Over 100,000 and Below 258,000.

New Orleans, La	241,995
Pittsburg, Penn	238,473
Washington, D. C	228,160
Detroit, Mich	205,876
Milwaukee, Wis	204,468
Newark, N. J	181,830
Louisville, Ky	161,129
Minneapolis, Minn	164,738
Jersey City, N. J	163,003
Rochester, N. Y	162,608
Omaha, Neb	140,452
St. Paul, Minn	133,156
Providence, R. I	132,146
Denver, Col	106,713
Indianapolis, Ind	105,436
Kansas City, Mo	104,415
Allegheny City, Pa	103,904

Over 75,000 and Below 100,000.

Scranton, Pa	99,328
Albany, N. Y	96,856
New Haven, Ct	86,045
Worcester, Mass	84,655
Richmond	81,388
Paterson, N. J	78,347
Memphis, Tenn	75,962

The census of 1880 showed that of the total population, 50,155,783, there were 6,679,943 born in foreign countries, or 13,364 persons foreigners to 100,000 native born; this ratio was a little less than in 1870, when the number of foreign-born was 10,892 to 100,000 native.

Number of immigrants arriving in United States.

The following tables show the number of immigrants arriving in the United States for each decade from 1821 to 1880, and for each year from 1881 to 1887. The yearly average during each decade rose rapidly, from 14,344 in the decade 1821-30 to 294,469 for the decade 1871-80. The number of immigrants for the year 1881 was more than twice as great as the yearly average of the preceding decade. The maximum was reached in 1882, when the number of immigrants reached 730,349, from which time forward there was a falling off, the figures in 1885 being 350,510. A portion of this apparent decrease seems to be due to the fact that the statistics of the immigration by land from Canada and Mexico—the latter very small in amount, however—could not be collected; so that since July 1, 1885, arrivals of this kind have been excluded from the tables of immigration. In the first table herewith given, the nationality of the immigration is only imperfectly given, the British Islands being separated from the rest of Europe, and the figures also being for China. As will be noticed, the immigration from Europe and China made up about five-sixths of the total during the decade 1871-80. But in the decade 1851-60 the immigration from Europe made up twenty four twenty-fifths of the total, that from China being practically null. The apparent increase of immigration from extra European countries indicated in the table for the decades since 1860 is chiefly due to the rapid increase of immigration into the United States from the adjacent Dominion; but this is made up in part of persons who have come to the United States from Europe by way of Canada:

Statement of Immigrant Arrivals in the United States for the Decades 1821-80.

From	1821-30.	1831-40.	1841-50.	1851-60.	1861-70.	1871-80.
British Islands	75,803	283,191	1,047,763	1,338,093	1,106,970	989,163
Rest of Europe	23,013	212,497	549,739	1,114,564	1,073,129	1,357,891
China	2	8	35	41,397	64,759	122,445
Rest of the World	44,621	103,429	115,714	104,460	349,736	475,295
Total	143,439	599,125	1,713,251	2,598,214	2,466,732	2,944,695
Yearly Average	14,344	59,912	171,325	259,821	246,675	294,469

Statement Showing Immigrant Arrivals in the United States for the Years 1881-87.

From	1881.	1882.	1883.	1884.	1885.	1886.	1887.
British Islands	165,230	161,428	157,291	121,753	105,610	126,041	179,669
Rest of Europe	435,101	441,678	541,195	285,870	221,592	258,847	328,651
China	20,711	35,614	341	84	57	8	28
Rest of the World	99,003	91,649	71,493	53,636	23,251	7,431	8,645
Total	720,045	730,349	670,318	461,346	350,510	392,887	516,993

[In this and the following table notice must be taken of the fact that for the last half of 1885 and for 1886 and 1887 the immigration from British North America and Mexico is not included.]

Still further light will be thrown on this subject by the following table, in which the nationality of the immigration into the United States is given in considerable detail for the years 1881 to 1887, in percentages of the total amount. From this table it will be seen that Germany has furnished during the past seven years somewhat less than one-third of the total immigration; Great Britain and Ireland somewhat more than a quarter; Norway and Sweden about a tenth; British North America about a tenth; Austro-Hungary a little over six per cent; Russia (including Poland), from four to five per cent; and Italy nearly the same. These nationalities together have furnished during the past six years about ninety-five per cent of the total. The immigration from Italy and Russia shows a moderately rapid, but pretty uniform, increase from year to year:—

Percentage Table Showing the Nationality of Immigrants into the United States for the Years 1881-87.*

Nationality of immigrants.

	1881.	1882.	1883.	1884.
Great Britain	13.10	12.11	12.92	13.69
Ireland	9.85	9.99	14.67	12.70
Austro-Hungary	3.92	4.10	5.30	6.81
Belgium	.27	.15	.29	.37
Denmark	1.24	1.75	1.71	1.65
France	.78	.76	.70	.80
Germany	34.66	31.80	32.33	33.72
Italy	2.79	4.03	5.18	3.14
Netherlands	1.50	1.08	.86	.81
Norway and Sweden	11.51	12.00	9.45	8.22
Russia	2.01	3.07	1.78	4.32
Spain and Portugal	.06	.06	.16	.11
Switzerland	1.62	1.62	2.00	1.78
Other European Countries	.06	.06	.06	.23
China	2.87	4.87	.07	.02
British North America	13.22	11.90	11.74	10.38
All Other Countries	.54	.65	.78	1.25
	100.00	100.00	100.00	100.00

PERCENTAGE TABLE SHOWING THE NATIONALITY OF IMMIGRANTS INTO THE UNITED STATES FOR THE YEARS 1885-87.*

	1885.	1886.	1887.
Great Britain	15.92	18.75	20.64
Ireland	14.21	13.47	14.06
Austro-Hungary	7.31	10.22	7.56
Belgium	.39	.42	.58
Denmark	1.67	1.69	1.80
France	.90	1.04	1.08
Germany	30.72	21.96	21.53
Italy	4.42	7.78	8.99
Netherlands	.71	.68	1.02
Norway and Sweden	9.47	11.73	13.46
Russia	5.72	8.45	5.95
Spain and Portugal	.26	.13	.01
Switzerland	1.46	1.15	1.26
Other European Countries	.19	.64	.25
China	.02	.00	.00
British North America	5.22	.....	.....
All Other Countries	1.41	1.89	1.81
	100.00	100.00	100.00

The immigration into the United States is very unequally distributed over the surface of the country. An inspection of the census tables and the accompanying maps shows that immigrants in very large proportion seek Northern regions. In the Southern States, with the exceptions of Florida, Louisiana, and Texas, the foreign element is practically null. Virginia, North Carolina, South Carolina, Alabama, Georgia, and Mississippi have less than one per cent of foreign-born population; and no State south of Pennsylvania and the Ohio River and east of the Mississippi has as much as four per cent. In the belt of States between the parallels of 41° and 45°, on the other hand, the foreign element is most strongly represented. Thus in Massachusetts, Connecticut, Rhode Island, New York, Michigan, Wisconsin, Minnesota, and Dakota the foreign-born population is over twenty-five per cent of the native, and in the two last-named States over fifty per cent. Iowa, Nebraska, and Kansas, forming a belt of States extending southwesterly from Wisconsin and Minnesota to the 37th parallel, have a foreign-born population ranging between ten and twenty-five per cent of the native, except in the case of Nebraska, where the foreign is a little over twenty-five per cent. In some of the thinly inhabited States farther west the foreign element is still more prominent, as in Colorado, Utah, Nevada, Arizona, and California. In Nevada, for example, according to the census of 1880, the foreign-born inhabitants were to the natives in the ratio of 70,065 to 100,000. But it must be remembered in this connection that the entire population of Nevada at that time was only 62,266, and that of Arizona 40,440. In no State or Territory does the foreign element equal the native, and only in Nevada, Arizona, Dakota, Minnesota, and California is it more than half as large, while in the two last-named States it is but little more than half. Texas forms an exception to the other Southern States, the foreign element being of importance, especially in the southwestern portion of the State. The State as a whole has, however, only a little less than eight per cent of foreign-born inhabitants.

The percentage increase of the native white element of the population was, for the three decades 1851-80, as follows:—

1851-60	32.35
1861-70	22.95
1871-80	31.25

Percentage increase of native white element.

Early in 1882 an Act was passed by Congress suspending Chinese immigration into the United States for the term of twenty years. This was vetoed by the President, and another one was passed having nearly the same provisions as the first, but limiting the time of its operation to ten years. This Act was not vetoed: but became a law May 6, 1882. This second Act is entitled "An Act to execute certain treaty stipulations relating to Chinese." From and after ninety days after the passage of this Act the entrance of Chinese "laborers" into the United States was forbidden, and any master of a vessel bringing them here was punishable by a fine of $500 for each laborer so brought, and also by imprisonment for a term not exceeding one year. The pretext for this unprecedented Act was "that the coming of Chinese laborers to this country endangers the good order of certain localities" within the territory of the United States. The term "laborers" was held to mean "both skilled and unskilled laborers, and Chinese employed in mining."

Further legislation relating to the exclusion of the Chinese from the United States was had by Congress in 1888. The two Acts were passed, the first having been approved Sept. 13, 1888, and a second, supplementary to this, Oct. 1, of the same year. The object of these two Acts was to prevent the Chinese who were then in the United States from returning after having left this country. The first Act, (approved Sept. 13) allowed a native of China to return, provided he had a "lawful wife, child or parent within the United States, or property therein of the value of one thousand dollars, or debts of like amount due him and pending settlement." This privilege was entirely cancelled by the supplementary Act, approved Oct. 1; and as the matter now stands, only "Chinese officials, teachers, students, merchants, or travelers for pleasure or curiosity are permitted to enter the United States." Furthermore, it is provided that in order to become entitled to such entrance they must "obtain the permission of the Chinese Government or other Government of which they may at the time be citizens or subjects." This permission, and the personal identity of the party having obtained it, must be authenticated by the diplomatic or consular representative of the United States at the port or place from which the party comes. It is further provided that any master of a vessel landing, or attempting to land, any Chinese laborer, "in contravention to the provisions of this Act, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished with a fine of not less than five hundred nor more than one thousand dollars, in the discretion of the Court, for every Chinese laborer or other Chinese person so brought, and may also be imprisoned for a term of not less than one year, nor more than five years, in the discretion of the Court."

Exclusion of Chinese

Provisions have also been made by Act of Congress for the regulation of the immigrant carrying business, and rules have been prescribed as to food, water, light, space occupied, etc. A tax of fifty cents is also imposed on all immigrants landing in this country to be used "in defraying the expense of regulating immigration under this Act, and for the care of immigrants arriving in the United States, for the relief of such as are in distress, etc."*

By an Act of Congress, approved Aug. 3, 1882, it is provided that no convict, lunatic, idiot, or person "unable to take care of himself or herself without becoming a public charge" shall be permitted to land. Under the provisions of this Act it appears that from 1883 to Sept. 25, 1888, 7,764 immigrants had been returned from the United States to their own countries—or an average of about 1,300 persons a year. Of those thus returned from 1883 to 1888 inclusive, there were 27 convicts, 371 lunatics, and 131 idiots. The remainder (7,235 persons) were returned as "liable to become a public charge."†

Rules for immigrants.

THE PUBLIC LANDS.

The emigration from Europe and other countries consists largely of people seeking homes in the New World; and this want is chiefly supplied by the purchase of government land—"public lands," as usually designated by the authorities—that is, of such land as is offered for sale by authority of the General Government, under the direction of the General Land Office—a branch or subdepartment of the Department of the Interior. It is desirable, therefore, that the way in which the General Government came in possession of these lands should be briefly stated, and some idea given of their extent and position.

Extent and position.

The boundaries of the United States as fixed by the provisional treaty made with Great Britain in 1782, and by the definitive treaty in 1783, gave to the United States essentially the region south of the Great Lakes and east of the Mississippi, as far south as the parallel of 31°; and the southern boundary east of the Mississippi, as thus established, nearly along the 31st parallel, was, in 1795, re-affirmed by treaty with Spain, by which the line between the United States and the Floridas was fixed; but difficulties soon arose in regard to the northern boundary, both in its eastern and western portions, which were, during many years, the subject of heated discussion, and which more than once threatened to involve the two countries, Great Britain and the United States, in war. The most important points were, however, peaceably settled in 1846, and the last point in dispute finally disposed of, by reference to the Emperor of Germany as arbitrator, in 1872.

At the time of the adoption of the Constitution by the original thirteen States, most of them had claims, rather vague, and in many cases decidedly conflicting, to a more or less indefinite area of country west of their settlements, and extending back to the Mississippi River. After much discussion, the States having these claims, influenced by the distinct realization of the trouble which would ensue in case an attempt was made to maintain them, did, in response to a resolution of Congress, consent to a transfer of these claims to the United States. The first cession of this kind was that of New York, in 1781, and the last, that of Georgia, in 1802. The region thus ceded was divided into two territories, one of which was called the "Territory Northwest of the River Ohio," the other the "Territory South of the River Ohio." This region formed the nucleus of the public lands of the United States. This did not include the present States of Kentucky and Tennessee, the former having been admitted to the Union without any claim on the part of the United States to proprietorship in the soil, and similar rights in regard to the latter having been relinquished by Act of Congress. The total area of the United States at this time was about 850,000 square miles. The first addition made to this was by the French cession of the undetermined area known as Louisiana. This was brought about by Jefferson, who recognized the fact that France would not be able to hold the

*The immigration into the United States arriving at the six principal ports (embracing about ninety-eight per cent of the entire immigration) was, for the first nine months of the year 1888, 432,802, a slight increase over that of the corresponding months of the preceding year.

*This tax is not collected from immigrants coming from Canada or Mexico.

†A very stringent Act was passed by Congress in 1885, prohibiting the importation and immigration of foreigners and aliens "under contract or agreement to perform labor in the United States, its Territories, and the District of Columbia." This Act can have little practical effect on the number of immigrants arriving in this country; nor has the writer been able to procure any definite information as to whether any persons have ever been sent back under its provisions.

First addition.

region against the English, with whom Bonaparte, at that time (1803-1801) First Consul, was about to go to war. The treaty of cession with Bonaparte gave no precise limits to the territory ceded, but only described it as being the same as that ceded by Spain to France according to the treaty of San Ildefonso. This vagueness was, no doubt agreeable to the wishes of the American negotiators, who did not lack foresight, and who must easily have comprehended the fact that the more vague the terms of the cession the better the chance of a future extension of the claims of the United States westward. In point of fact the French cession did not include the country west to the Pacific, as it was afterward held to do, for the French had no claim whatever to the region west of the head of the Missouri. As a consequence of this cession, however, this vast region did come into possession of the United States, the boundary having been finally settled in 1872, after ninety years of discussion. The final settlement was by a reference of the point in dispute to the Emperor of Germany, who decided in favor of the United States; the main question with regard to the extension of the boundary along the line of the 49th parallel to the Pacific, having been settled in 1846 by the Webster-Ashburton treaty, which fixed the boundary as far west as the Straits of Fuca. This cession of Louisiana, as finally settled by treaty with England, added largely to the area of the United States, extending its limits to the Pacific Ocean, and giving that country complete possession of the Central River system of the continent. The cost of this cession to the United States was about twenty-three and a half million dollars in principal and interest.

A further addition to the territory of the United States was by a cession from Spain of the territory comprised in the present State of Florida, which took place in 1819, the area thus conveyed being about 58,680 square miles, and the cost about six and a half millions of dollars. Previous to this cession, however, the United States had, by Act of Congress passed in secret session in 1812, but not promulgated until 1818, taken possession of an area of about 9,740 square miles in West Florida, which was claimed by the Spanish Government as its property, but which claim was relinquished by the cession of 1819.

The next acquisition of territory by the United States was the result of the admission into the Union of the Republic of Texas, a former province of Mexico, having an area of 265,780 square miles. This annexation led to a war with the country to which Texas had formerly belonged, the result of which was the conquest of Mexico, the occupation of its capital by the United States army, and the dictation of a treaty of peace called the "treaty of Guadalupe-Hidalgo," which was proclaimed July 4, 1848. By this treaty the southern boundary of the United States was established; but subsequently, Dec. 30, 1853, a purchase was made of a strip of land lying south of the Gila River in New Mexico and Arizona, and containing about 47,330 square miles. This is known as the "Gadsden purchase."

Claims of Great Britain and Mexico.

The claims of both Great Britain and Mexico to the region lying west of the Missouri and northwest of Texas being extremely vague, it is not possible to state, with any approach to precision, what portions of this area originally belonged to the two powers in question. All that can be said is that, remotely, in consequence of the purchase of "Louisiana" from Bonaparte, and more directly, as the result of treaties with Great Britain and Mexico settling the northern and southern boundaries of the United States, the last named country came into possession of a little over 1,800,000 square miles of land, as shown in the following statement of the nature and size of the areas added from time to time to what was the original domain of the Colonies at the time of their establishment as an independent government:

	Square miles.
Original area of the United States.....	849,145
Added by purchase of Florida, 1819, including 9,740 square miles previously in dispute, but in possession of the United States.....	58,680
Annexation of Texas, 1848.....	265,780
Gadsden Purchase, 1853.....	47,330
Purchase of Louisiana and cessions by Mexico, 1804-48.....	1,804,665
Total.....	3,025,600

One other addition to the area of the United States was made in 1867, namely, by the purchase from the Russian Government of the region known as Alaska, which comprises an area of about 530,000 square miles. The price paid for this piece of land was $7,200,000. The purchase of this territory, the nearest point of which is four hundred miles distant from the northern line of Washington, was an entirely unprecedented act on the part of the United States, all the rest of the possessions of this country forming one compact mass of land. Whenever, in the course of this work, mention is made of the United States, it will be understood that Alaska is not included, unless a statement to that effect is specially made in the same connection.

Alaska.

The entire area of the public lands of the United States (exclusive of Alaska, no portion of which has yet been surveyed) is estimated by the Commissioner of the General Land Office, in his report for the year 1886, at 2,836,725 square miles, or 1,815,504,147 acres. Of this area there had been surveyed, up to June 30, 1886, 971,174,878 acres, leaving 844,329,269 unsurveyed. In reference to this unsurveyed portion the Commissioner made the following remark: "The volume of land in the unsurveyed portion of the public domain suitable for homes and subject to settlement under the laws of the United States is of comparatively small proportions."

Of the public lands of the United States a large quantity has been sold for cash, and a much larger amount taken, under various Acts of Congress, for schools and other educational purposes; as military bounty; as "swamp land," given to the respective States where it occurs, or has been claimed to occur; as a bonus for the construction of various lines of railroad, especially those traversing the continent from east to west; as "homesteads" to actual settlers, and for various other purposes. It is impossible to state the exact amount of the public land which has been thus disposed of, but it is certain that nearly all the valuable portion of the nations great inheritance has been taken up already, or has passed out of the control of the Government. In regard to this point, the following quotation may be made from the introduction to the volume entitled "Statistics of Agriculture," forming a part of the report of the census of 1880, and published in 1883, the remarks here quoted being from the pen of General Walker, formerly superintendent of that census:

Valuable land already gone.

"It thus appears that, notwithstanding the imposing total of 1,400,000 square miles of still unsettled territory, the amount of land available for occupation for ordinary agriculture is not large. The Public Land Commission in their report of 1880, say: 'It was estimated June 30, 1879, that (exclusive of certain lands in Southern States) of lands over which the survey and disposition laws had extended, lying in the West, the United States did not own, of arable agricultural public lands, which could be cultivated without irrigation or other artificial appliances, more than the area of the present State of Ohio, namely, 25,566,960 acres. The quantity of land taken up in the arable region during the year ending June 30, 1880, was about 7,000,000 acres. The Commission, therefore, reaches the startling conclusion that, at the same rate of absorption, the arable lands so situated will all be taken up within three years, or by June 30, 1883.'

"It is indeed an astonishing announcement that the public land system, so far as relates to agricultural settlers, has virtually come to an end; that the homestead and pre-emption acts are practically exhausted of their contents."

Professor A. B. Hart has compiled from public documents the following approximate statement of the manner in which the public lands had been disposed of up to the various periods mentioned. The numbers given indicate acres:

Date.	Sales.	Grants to individuals other than for internal improvements.	Grants to States other than for internal improvements.	Grants for internal improvements to States and Corporations.	Total.
To 1790.....	1,487,986	35,040	.....	.....	1,523,026
1801.....	1,574,917	2,154,660	.....	.....	3,729,577
1820-21.....	19,423,212	7,260,152	.....	.....	33,375,901
1841.....	93,043,927	9,795,033	8,830,654	1,780,505	113,420,119
1861.....	161,706,816	75,446,345	113,962,581	31,600,842	382,826,534
1881.....	181,837,359	140,524,032	158,187,194	162,230,699	642,778,284
1884.....	192,584,116	167,483,506	158,417,594	162,230,499	680,715,315

In reference to the wasteful and reckless manner in which the public lands of the United States had been given away, until but little of value remains, Professor Hart makes the following remarks:—

"Experts in the Land Office assure us that, making all deductions and allowances, the remaining lands are worth upwards of a thousand million dollars. There is no evidence in the past policy of the government for believing that we shall actually net one-tenth of that amount. The greater part of the region is officially classified as 'desert lands,' and is for sale in tracts of six hundred and forty acres, at a dollar and a quarter an acre. Nothing but the temporary increase of pre-emption enables the Land Office at present to pay its running expenses out of income. The golden time is past; our agricultural land is gone; our timber lands are

fast going; our coal and mineral lands will be snapped up as fast as they prove valuable."*

AGRICULTURE.

The following statements and tables present a succinct view of the nature and importance of the agricultural interests of the United States, beginning with the cereals.

I.—THE CEREALS.

The following table shows the production of the cereals in bushels, as returned by the census of 1880:—

	Production in bushels.
Barley	44,113,495
Buckwheat	11,817,327
Indian corn	1,754,861,535
Oats	407,858,999
Rye	19,831,595
Wheat	459,479,505

Production of cereals.

The production of barley was largest in California (twelve and a half million bushels); other States producing considerable quantities were: New York, Iowa, Minnesota, Nebraska, Ohio. No other State produced as much as one million bushels. In 1886 the total production of barley in the United States was 59,428,000 bushels; of that amount California produced 16,038,000 bushels: and New York, Minnesota, Wisconsin and Iowa each over five million and less than ten million bushels; while Nebraska, Michigan and Dakota each produced over one million and less than five million bushels.

The total production of buckwheat within the United States, according to the census of 1880, was 11,817,327 bushels: of this amount New York and Pennsylvania produced respectively, 4,461,200 and 3,592,326 bushels. No other State produced as much as half a million bushels; the production of this cereal in the Gulf States being extremely small, that of the Pacific States being also very insignificant. No one of the States, other than New York and Pennsylvania, produced as much as half a million bushels

In 1886 the total production of buckwheat was 11,809,000 bushels, or almost exactly the same as in the last census year (1879).

Indian corn is the most bulky crop among the cereals, the total yield as reported by the census of 1880 being 1,754,861,535 bushels. The principal production of this crop is in the belt of States lying north of the Ohio, and in the same latitude on the west of the Mississippi, as will be seen from the following table:—

State.	Production in bushels in 1879.
Illinois	325,702,481
Iowa	275,024,247
Missouri	202,485,723
Indiana	115,482,300
Ohio	111,877,124

These five States produced, as will be seen, considerably more than half the total yield of the country in the year for which the statistics are given. As we go north, south, east and west from this belt we find the yield of Indian corn diminishing. Still, this cereal is a product of importance even as far south as the Gulf States, but is of comparatively little consequence in New England, the total production of the six New England States in 1879 being only 8,376,133 bushels.

In 1886 the total yield of Indian corn was 1,665,441,000 bushels, and the States producing over one hundred million bushels each were:

States.	Production in bushels in 1886.
Illinois	209,818,000
Iowa	198 847,000
Missouri	143,709,000
Kansas	126,712,000
Indiana	118,795,000
Nebraska	106,129,000

Yield of Indian corn.

These six States produced in that year considerably more than half of the total, and the gradual advancement westward of the agricultural development of the country is shown in the appearance of Nebraska in the above column of figures as a producer of over a hundred millions of bushels. The yield of Indian corn in this State, according to the census of 1870, was 4,736,710 bushels, and in 1879 it had increased to 65,450,115 bushels. The figures for Dakota for the same years were 133,140 and 2,000,864 bushels.

Of this crop, so important as it is for home consumption, but a very small fraction is exported. The following table exhibits the total produce of the country for the years since the census year (1879) up to and including the year 1886, together with the percentage exported for each year:

Year.	Production in bushels.	Per cent. exported.
1880	1,717,434,543	5.5
1881	1,194,916,000	3 7
1882	1,617,025,100	2.6
1883	1,551,066,895	3 0
1884	1,795,528,000	2.9
1885	1,936,176,000	3.3
1886	1,665,441,000	2.5

*Quarterly Journal of Economics, vol. i. p. 181 (number for January, 1887).

The yield of corn in 1887 is given by the Department of Agriculture as 1,456,161,000 bushels, and that of 1888 is estimated at 1,987,790,000 bushels. Since 1879 the home consumption of this cereal has averaged about twenty-seven bushels per annum for each inhabitant of the country; in the ten years preceding it averaged about twenty-five bushels.

The total yield of oats, as reported by the census of 1880, was 407,858,999 bushels. The distribution of this crop is pretty uniform all over the country, with the exception of the Gulf and Pacific Coast States, where the yield of this cereal is very small, barley taking the place of oats in California almost entirely.

The following table exhibits the production of oats in the United States from 1880 to 1888:

Year.	Production in bushels.
1880	417,885,380
1881	416,481,000
1882	488,250,610
1883	571,302,400
1884	583,628,000
1885	629,409,000
1886	624,134,000
1887	659,618,000
1888	701,735,000

The increase in the number of acres cultivated in oats since the census year has been very marked: more so than in the case of wheat or Indian corn. The average for the decade, 1870-79 was 11,000,000 acres; that for the years 1880-87 was 21,000,000 acres.

Rye.

The amount of rye grown in the United States as returned by the census of 1880 was 10,831,595 bushels; the principal States where this crop is raised being, in the order of their yield, Pennsylvania, 3,683,621; Illinois, 3,121,785; New York, 2,634,690; Wisconsin, 2,208,513; and Iowa, 1,518,605 bushels. The production of this cereal in the States south of Kentucky and Virginia is extremely small, but some rye is given as grown in every State and Territory, except Arizona and Nevada. The production of rye in 1886 was 24,489,000 bushels; Kansas appearing this year as a producer of a little over two million bushels, and Nebraska of nearly one million.

Wheat.

Wheat is an extremely important crop in the United States, and is the only cereal of which the export is considerable. The great wheat-growing States are those along the north side of the Ohio, from New York westward and across the Mississippi into Iowa, Kansas and Northwest, including Nebraska, Minnesota and Dakota. The yield of the census year (1879) was 459,479,505 bushels. In that year, Illinois, Indiana, Ohio, Michigan, Minnesota and Iowa each produced over thirty million bushels; the total yield of those six States was somewhat more than half that of the whole country. In 1887 the total was very nearly the same (456,329,000 bushels), but the distribution of this yield was somewhat different. There were in that year also six States producing each more than thirty million bushels. Of these six, four are among those included in a similar category for the year 1879 Michigan and Iowa have dropped out of that list, and Dakota and California must be inserted in their places.* These six States, as before, produce almost exactly half the entire yield of the country. What is more remarkable is, that Dakota, which in 1879 only figured with a produce of 2,830,289 bushels, appears in 1877 as furnishing no less than 52,406,000 bushels, or more than one-tenth of the whole crop of this cereal Other States of importance in 1887 were Missouri, Iowa and Michigan, each of which produced between twenty and thirty millions of bushels; and Nebraska, Oregon, Pennsylvania, Wisconsin, Kentucky and New York, each of which produced between ten and twenty millions of bushels.

In the tabular statement of the yield of wheat for the year 1887, as given by the Department of Agriculture, forty-two States and Territories appear as producing more or less of this cereal, but the quantity grown south of Kentucky and Virginia is very small. The yield of the Gulf States is entirely insignificant, Florida and Louisiana not appearing at all in the list: and that of New England is equally unimportant, the whole produce of that section of the country being in that year only 74,547 bushels.

The following table gives the production of wheat, total value, value per bushel, and amount exported for each of the years, 1880-87:—

Year.	Total production. (Bushels.)	Total value of crop	Av. value per bushel (in cents).	Amt. exported. (Bushels.)
1880	498,549,868	$474,201,850	95.1	186,321,514
1881	383,280,090	456,880,427	119 3	121,892,389
1882	504,185,470	444,602,125	88 2	147,811,316
1883	421,086,160	383,649,272	91.0	111,534,182
1884	512,765,000	330,862,260	64.5	132,570,367
1885	357,112,000	275,320,390	77.1	94,565,794
1886	457,218,000	314,226,020	68.7	153,804,970
1887	456,329,000	310,612,960	68.1	.....
Aver'ge	448,815,699	373,794,413	83.3	135,500,076

The estimate of the Agricultural Department of the yield of wheat for the year 1888 is 415,868,000.

Grass and hay.

The grass crop is well understood to be the greatest of all the crops of the United States. Altogether, in addition to the very large amount consumed from the ground during the grazing sea-

*The yield of California remained nearly the same in 1887 that it was in 1879. In the former year it was a trifle over thirty millions; in the latter a trifle under that amount.

son, the value of the harvested hay reaches nearly to that of the greatest of the cereal crops. The following statistics are presented:—

The area mown in 1879 was 30,631,054 acres; in 1886, 36,501,688 acres. The value of the hay cut in the latter year was 353,437,699.* In one State (New York) the value amounted to over fifty millions of dollars; in one (Pennsylvania), to over thirty and less than forty millions; in three States (Illinois, Ohio and Iowa), to over twenty and less than thirty millions.

The grass and hay producing industry decreases in importance as we go from the North toward the South. Thus, the thirteen States in each of which (in 1879) more than a million of acres were mown are all north of the parallel of 37°; and all but two (Missouri and Kansas) north of 39°, excepting very small fractions of Ohio, Indiana and Illinois.

Animals dairy products.

The number and value of the animals on farms in the year 1886 was as follows:—

	Number.	Value.
Horses	13,172,936	$946,096,154
Mules	2,191,727	174,853,563
Milch cows	14,856,414	366,252,173
Oxen and other cattle	34,378,363	611,750,520
Sheep	43,544,755	89,279,926
Hogs	44,346,525	220,811,082

The importance of the crop of Indian corn has given a great development to the business of fattening swine, and an average of about fifteen per cent of this production has, during the past twenty-seven years, been exported. The average value of "hog products" (live hogs, bacon, hams, pork and lard) exported has been, during the years 1881-87, $73,671,607 per annum, as against $65,13[illegible],98 in the decade 1871-80.

The statistics of dairy products given in the Agricultural Report of the Census of 1880 for the year 1879 are presented in a very condensed form, as follows:—

Milk sold, or sent to butter and cheese factories	530,129,755 gals.
Butter made on farms	777,250,287 lbs.
Cheese made on farms	27,272,489 lbs.

The very great extent and importance of the poultry industry in the United States is made apparent by the following statement of facts gathered by the census of 1880:—

Barnyard poultry on hand, June 1, 1880	102,272,135
Other poultry on hand June 1, 1880	23,235,187
Eggs produced in 1879	456,910,916

At twelve cents a dozen, the annual value of the egg product to the farm would reach nearly $55,000,000, and the value of the fowls consumed as food may fairly be estimated at $20,000,000. The average yield of eggs per fowl is fully twice as great in the Northern States as it is in the Southern.

Cotton.

The cotton production of the United States is of great importance, both from the extent to which this material is manufactured within the country, and because it is the first on the list in value among the exports.

Cotton is mentioned in the records of the Colony of South Carolina as early as 1664, and a small quantity was exported in 1747. The invention of the cotton-gin by Eli Whitney, in 1794, was followed by a rapid development of the cotton-raising business throughout the Southern States. The first crop of sea-island cotton was raised in 1790, from seed that came either from the Bahama or Barbadoes Islands.

The total production of the country in the year 1879 is given by the census of 1880 at 5,737,257 bales, of 375 pounds; this having been assumed to be the weight of the bale, in 1879—the average proportion of seed to fibre, or lint, in the crop as it comes from the field being given as two to one. The stated number of bales is equivalent, therefore, to 1,362,599 tons (of 2,000 pounds) of lint or fibre, and 2,725,197 of seed.

This production was divided among the States as follows:

	Field. Bales.	Av. Product per acre. Fraction of bale.
Mississippi	955,808	0.46
Georgia	814,441	0.31
Texas	803,642	0.37
Alabama	699,654	0.30
Arkansas	608,256	0.58
South Carolina	522,548	0.38
Louisiana	508,569	0.59
North Carolina	389,598	0.44
Tennessee	340,644	0.46
Florida	54,997	0.22
Missouri	19,733	0.60
Indian Territory	17,000	0.49
Virginia	11,000	0.46
Kentucky	1,367	0.51
Total	5,737,257	gen. av. 0.40

From the above table it will be seen that the limit of profitable cultivation of cotton is pretty sharply drawn at about the parallel of 37°; the production of Virginia and Kentucky—the southern border of which States is in the latitude 36° 30′—being exceedingly small. The production of Missouri is limited to a highly fertile region lying in the extreme southeastern portion of the State; while that of Kentucky pertains to the country lying adjacent to Western Tennessee and the rich bottom-lands along the Mississippi River. It does not appear that any cotton is produced north of the Ohio River.

According to Professor E. W. Hilgard, Special Agent of the Census of 1880, in charge of the subject of Cotton Production, the high production of Mississippi is due in part to the great fertility and large area of the "bottom-land" along the Mississippi River within the limits of that State, and in larger part to the fertility of the "uplands," or table-land bordering the Mississippi bluff, and the interior "prairie belts." These favorable conditions have as a result that cotton culture is the one pursuit to which the population of this State devotes itself. It is rather great natural advantages than skill and industry which give Mississippi the first place in the production of cotton. Professor Hilgard thinks that by enlarging the area of tillable land in the Yazoo bottom, by simple exclusion of the overflows of the Mississippi, without any change in the methods of culture, the produce of the State might be raised to two and a quarter millions of bales; and that with improved cultivation the production might be brought up to five millions, so that under these conditions Mississippi alone could produce the entire crop now grown in the United States.

Georgia stands second in total production among the States, but the average production per acre is but two-thirds that of Mississippi. The area of what would be called in the last-named State first and second class cotton soil is in Georgia quite limited—far more so than is the case in the neighboring State of Alabama; yet the former State is slightly in advance of the latter in the average product per acre. The high position of Georgia as a cotton producing State is due therefore, not to natural advantages, but to better cultivation of the soil, the use of fertilizers, and the thrift of an industrious population. Georgia cotton producing State.

Texas—much the largest in area of the cotton producing States, and also slightly larger in population than any of the other Gulf States—stands third on the list of total production. In the average product per acre it is among the very lowest. This fact seems to be due, in large part at least, to the position of Texas in reference to precipitation. In this State the total amount of rainfall is considerably less than in the other Gulf States, owing to its position in reference to the prevailing winds; and the diminution of rainfall is rapid as we recede from the coast. The precipitation is largest in the extreme northeastern portion of the State, and here—north of the 32d parallel and east of the 98th meridian—more than half the cotton product of the State is grown. The fact that Texas is so much larger than the other cotton producing States must also be borne in mind in connection with its position as the third on the list. It has, in fact, an area more than five times as great as the average area of the six other principal cotton States. Texas.

Alabama is naturally as well suited for the growth of cotton as the two States adjacent to it on the east and west, Georgia and Mississippi; and its position as fourth on the list, and as inferior to both these States, is considered by Professor Hilgard to be due to the fact that Mississippi is still within the period of the first flush of fertility, while Georgia has reached the stage where her fields are being renovated by the use of fertilizers; while the soil of Alabama has begun to be exhausted, but this exhaustion has not yet proceeded so far that the cultivators realize the necessity of making good this deficiency by proper modes of cultivation, as is done to a certain extent in Georgia. Alabama.

In South and North Carolina the average cotton production per acre is high as compared with that of Alabama and Georgia, and in the case of North Carolina approaches that of Mississippi itself. The reason for this condition of things is to be found chiefly in the introduction of improved methods of culture, and the use of fertilizers. In South Carolina the so-called sea-island cotton is produced—a variety of cotton of great value, although small in amount, the production of it for the year 1880 being set down in the Census Report as 9,966 bales. The finest cotton ever known to have been produced is the long-staple cotton of Edisto Island, which sold for two dollars a pound when other cottons were only bringing nine cents. The islands where this crop is grown line the coast, sometimes forming three or four parallel belts, having their greatest development at the mouth of Broad River, from which in each direction along the coast they diminish in numbers. South and North Carolina.

All the important cotton producing States with the exception of Arkansas and Tennessee, lie either on the Gulf of Mexico or the Atlantic coast; but the principal cotton-producing areas in the case of each of these States are at a considerable distance from the coast. Thus, in Mississippi by far the greater portion of the area planted in cotton lies in the northern and western part of the State, while in the extreme south there is an area where cotton culture is either very subordinate or practically non-existent; nor is this decrease of cotton culture accompanied by a corresponding increase of some other production. In Louisiana an obvious fact—rendered apparent by a glance at the map showing the relative areas given to cotton culture in the State—is the decrease of cotton culture as we advance southward. In Alabama the central prairie region, or black-soil belt, a narrow strip of country only about twenty-five miles wide, running east and west through the centre of the State, more than a hundred miles from the coast, produces forty per cent of the entire cotton crop. Adjacent to this particularly rich belt on the north and south is a belt of less but still large productiveness, making the total width of the central cotton belt about seventy-five miles; and here at least sixty per cent. of the cotton of the State is raised. In Georgia the principal cotton-producing belt runs nearly parallel with the coast, and at a distance of from one hundred to one hundred and fifty miles from it. A similar condition of things is clearly indicated in both North and South Carolina.

* This includes only hay cut on farms, and not that cut on public lands and lands of non-residents.

On comparing the facts here stated with the position of the isothermal and isohyetal curves in the region where cotton is grown, it will be seen that nearly the entire production of cotton comes from the area included between the isothermals of 60° and 68°, and there is none cultivated in any region of lower mean annual temperature than 56°. It also appears that the cotton-producing area is one of comparatively large precipitation, being nowhere less than thirty-eight inches, and generally considerably over that amount; and also that this precipitation is pretty uniformally distributed throughout the year. From this it is seen that the climatic conditions favoring the growth of cotton are of such a nature as to limit its successful production to a comparatively small area, differing in this respect materially from some of the other staples of the country, especially Indian corn and wheat. It will also be evident that the conditions existing on the Pacific coast do not favor the successful cultivation of cotton in that region.

Table of Cotton Production.

The following table exhibits the production of cotton and the amount exported for each year from 1880 to 1887. The average annual yield during the twenty years previous to 1861 was 1,335,000,000 pounds; during the twenty-three years from 1865 to 1886 it was 2,207,000,000 pounds—an increase of 65.3 per cent. During the pentad 1883–87 the average was 2,036,345,355 pounds, or a little less than the average of the years 1865 to 86:—

Year.	Production in Pounds	Exports in Pounds.
1880	3,199,822,682	2,190,928,772
1881	2,588,286,636	1,739,975,961
1882	3,405,070,410	2,208,075,062
1883	2,757,544,422	1,862,572,530
1884	2,742,966,011	1,891,659,472
1885	3,182,350,531	2,058,037,444
1886	3 157,378 443	2,169,457,330
1887*	3 500,000,000	2,200,000,000

*Approximate

The climatic conditions under which tobacco can be raised seem to be quite variable, since more or less of this crop is furnished by almost every State in the Union. The yield of the extreme Southern and extreme Northern States is, however, very small: as (in 1879), of Maine only 250 pounds; of Oregon, 17,325; of New Mexico, 890; of Louisiana, 55,954.

Kentucky largest tobacco producing State.

The largest tobacco-producing State is Kentucky, with 171,120,784 pounds in 1879, according to the census of 1880. Next comes Virginia, with 79,988,868; then Pennsylvania, 36,943,272; Ohio, 34,735,235; Tennessee, 29,365,052; North Carolina, 26,986,213; Maryland, 26,082,147; Missouri, 12,015,657; Wisconsin, 10,608,423. From this it is evident that the culture of tobacco is carried on most successfully in the Middle Atlantic States and those bordering on the Ohio River, diminishing gradually in this latitude westerly, and having no importance in the extreme Western States. The mean temperature of the chief tobacco producing area is indicated by the statement that it lies between the isothermals of 52° and 60°. As regards precipitation, a somewhat moist climate seems to be required, and there is little tobacco raised where the rainfall averages less than thirty-eight inches. The isothermal of thirty-two inches seems to be the limit beyond which it cannot pass. The total yield of the United States in the year 1879 was 472,661,159 pounds, having an estimated value as raised, in the producers' hands, of $51,104,870.

The production of tobacco in 1886 was about eleven per cent. larger than in 1879—namely, 532,537,000 pounds. The relative rank of the States in the production of this crop was almost exactly the same at the two periods. Kentucky and Virginia together furnished in 1886 more than half the total, or 285,104,000 pounds. The entire value of the tobacco raised in 1886 was $39,468,218.

Rice.

The production of rice for the year 1879 as returned by the census of 1880 was as follows:—

	Pounds.	Average yield per acre.
Alabama	810,889	514
Florida	1,294,677	508
Georgia	25,360,687	725
Louisiana	23,188,311	552
Mississippi	1,718,951	491
North Carolina	5,609,191	517
South Carolina	52,077,515	664
Texas	62,152	186
Total	110,131,373	gen. av. 632

Sugar.

The production of sugar from the sugar-cane is extremely small as compared with the consumption of this article. Louisiana is the only State of any importance in this connection, although a small quantity of sugar is made in each of the following States: Georgia, Florida, Texas, Alabama, Mississippi and South Carolina. The total production in the year 1879, as returned by the census of 1880, was—of sugar, 178,872 hogsheads, and of molasses, 16,573,273 gallons, of which Louisiana furnished 171,706 hogsheads and 11,696,248 gallons.

The census of 1880 gives the following statistics of the production for that year of sugar and molasses from sorghum and the maple:

	Sugar	Molasses.
Sorghum	12,792 lbs.	28,444,262 gals.
Maple	36,576,061	1,796,048

The principal production of sorghum molasses is in the States of Missouri, Tennessee, Kentucky, Illinois, and Iowa; that of maple sugar, in Vermont and New York, in each of which States the produce was over 10,000,000 pounds.

The following additional facts in regard to the agriculture of the United States are condensed and arranged from the volume entitled "Statistics of Agriculture," in the Census Report for 1880:—

General summary.

	1870.	1880.
Total number of farms	2,659,985	4,008,907

The term "farm," as here used, is understood to mean a tract of not less than three acres, unless $500 worth of produce has actually been sold off from it during the year, and owned or leased by one man and cultivated under his care:—

Total area of United States in acres	1,856,108,800
Number of acres in farms	536,081,835

Proportion of unimproved land in farms to improved, in percentage	1860.	1870.	1880.
	59.9	53.7	46.9

Of the 4,008,907 farms returned, 74 per cent were cultivated by their owners, 8 per cent by tenants on basis of fixed money rental, and 18 per cent by tenants paying a share of the product or rent.

The total value of the farms of the United States, including land, buildings and fences, is given by the census of 1880 at $10,197,096,776; and the estimated value of all farm productions sold consumed, or on hand, in 1879, was $2,12,540,927.

The following tabular statement, from the volume of the Census Report of 1880, entitled "Statistics of Agriculture," and published in 1883, presents a resume of the principal facts connected with the agricultural interests of the country, so far as concerns the amounts or values of the different products:—

Tabular statement.

CONDENSED TABULAR VIEW OF AGRICULTURAL PRODUCTS CHIEFLY IN THE YEAR 1879, ARRANGED FROM THE CENSUS REPORT, VOLUME ENTITLED "STATISTICS OF AGRICULTURE," PUBLISHED 1883.

Number of farms	4,008,907
Value of farms, including land, fences, and buildings	$10,197,096,776
Estimated value of farm products for 1879	$2,212,540,927
Wool produced	240,681,751 pounds
Milk (not including that sent to butter or cheese factories)	530,129,755 gallons
Butter (including that made on farms and in factories)	806,672,071 pounds
Cheese (made on farms and in factories)	243,157,850 "
Barley	43,997,495 bushels
Buckwheat	11,817,327 "
Indian corn	1,754 591,676 "
Oats	407,858,999 "
Rye	19,831,595 "
Wheat	459,483,137 "
Cotton	5,755,359 bales
Flaxseed	7,170,951 bushels
Flaxstraw	421,098 tons
Flax fibre	1,565,546 pounds
Hemp	5,025 tons
Sugar (sugar-cane)	178,872 hhds.
Molasses (sugar-cane)	16,573,273 gallons
Sugar(sorghum)	12,792 pounds
Molasses (sorghum)	28,444,202 gallons
Sugar (maple)	36,576,061 pounds
Molasses (maple)	1,796,048 gallons
Hay mown	35,150,711 tons
Clover-seed	1,922,982 bushels
Grass-seed	1,317,701 "
Eggs	456,910,916 dozen
Honey	25,743,208 pounds
Wax	1,105,689 "
Rice	110,131,373 "
Tobacco	472,661,157 "
Potatoes, Irish	169,458,539 bushels
Potatoes, sweet	33,378,693 "
Orchard products (sold or consumed)	$50,876,154
Market-garden products	$21,761,250
Hops	26,546,378 pounds
Broom corn	29,480,106 "
Peas	6,514,977 bushels
Beans	3,075,050 "
Wood, amount cut	51,442,624 cords
Forest products, value of all consumed or sold	$95,774,735

The following general summary presents in one table the estimated quantities, number of acres cultivated, and aggregate value of the principal crops of the country in the year 1886:—

Products.	Quantity.	No. of Acres	Value.
Indian corn	1,665,441,000 bushels	75,694,208	$610,311,000
Wheat	457,218,000 "	36,806,184	314,226,020
Rye	24,489,000 "	2,129,918	13,181,330
Oats	624,134,000 "	23,658,474	186,137,930
Barley	59,428,000 "	2,652,957	31,840,510
Buckwheat	11,869,600 "	917,915	6,465,120
Potatoes	168,051,000 "	2,287,136	78,441,940
Total	3,010,630,000 bushels	144,146,792	$1,240,603,850
Tobacco	532,570,000 pounds	750,210	39,468,218
Hay	41,796,499 tons	36,501,688	353,437,699
Cotton	6,445,864 bales	18,454,603	257,295,327
Grand total		199,853,293	$1,890,805,094

MANUFACTURES.

The most important facts connected with the manufacturing interests of the United States, as revealed by the census of 1880 and those of the preceding decades, may be stated, in the most condensed form, as follows:—

First, a table is given showing certain of the principal items connected with manufactures in the form of totals for the whole United States, for the three census years 1860, 1870, and 1880:—

Statistics.

TABULAR STATEMENT OF MANUFACTURES IN THE UNITED STATES.

	1860.	1870.	1880.
Number of Establishments	140,433	252,148	253,852
Capital Invested	$1,009,855,715	$2,118,208,769	2,790,272,606
Average Number of Hands Employed			
Males above 16 years		1,615,598	2,019,035
Females above 15 yrs.		323,770	531,639
Children and Youths		114,628	181,921
Total am't. paid in wages during the year	$378,878,966	$775,584,343	$947,953,795
Value of Materials used	1,031,605,092	2,488,427,242	3,396,823,549
Value of Products	1,885,861,676	4,232,325,442	5,369,579,191

The proportion in which the various branches of manufacture are geographically distributed over the country, according to the census of 1880, is shown by the following percentage statement:—

TABLE OF GEOGRAPHICAL DISTRIBUTION OF MANUFACTURES IN THE UNITED STATES.

	Proportion of total Area.	Number of Establishments.	Amount of Capital invested	Hands Employed.	Wages Paid.	Gross Product
N. Atlantic	5.6	44.87	61.94	62.23	64.33	59.64
S. Atlantic	9.4	10.16	5.89	7.59	4.99	5.26
N. Central	25.5	34.33	25.78	24.39	24.86	28.94
S. Central	20.3	7.55	3.75	3.85	3 11	3.47
W. (Cordilleran)	39.4	3.09	2.64	1.94	2.71	2.69

Next may follow a statement of the various most extensive manufacturing industries arranged in the order of their importance, with reference to the value of their products. In this table all branches of manufacture are included in which the total production exceeds $40,000,000 in value:—

TABLE OF INDIVIDUAL MANUFACTURING INDUSTRIES IN THE UNITED STATES, ACCORDING TO THE CENSUS OF 1880.

Products.	Number of Establishments.	Number of Hands employed.
Flouring and Grist Mill Products	24,338	58,407
Slaughtering and Meat Packing	872	27,297
Iron and Steel	1,005	140,978
Woolen of all classes	2,089	161,557
Lumber, Sawed	25,708	147,956
Foundry and Machine Shop Products	4,958	145,357
Cotton Goods	1,005	185,472
Clothing, Men's	6,166	160,813
Boots and Shoes	17,972	133,819
Sugar and Molasses, Refined	49	5,857
Leather, Tanned	3,105	23,812
Liquors, Malt	2,191	26,220
Carpentering	9,184	54,138
Printing and Publishing	3,467	58,478
Furniture	5,227	59,304
Leather, Curried	2,319	11,053
Agricultural Implements	1,943	39,580
Mixed Textiles	470	43,373
Bread and other Bakery Products	6,396	22,488
Carriages and Wagons	3,841	45,394
Tobacco, Cigars, etc.	7,145	53,297
Paper	692	24,422
Tobacco, Chewing, Smoking and Snuff	477	32,756
Tin ware, Copper ware, and Sheet-iron ware	7,595	26,248
Blacksmithing	28,101	34,526
Liquors, Distilled	844	6,502
Silk and Silk Goods	382	31,337

Products.	Amount paid in Wages.	Value of Materials.	Value of Products.
Flouring and Grist Mill Products	$17,422,316	$441,545,225	$505,185,712
Slaughtering and Meat Packing	10,508,530	267,738,902	303,502,413
Iron and Steel	55,476,785	191,271,150	290,557,685
Woolen of all classes	47,389,187	164,371,551	267,252,913
Lumber, Sawed	31,845,974	146,155,385	233,268,729
Foundry and Machine Shop Products	65,982,133	103,345,083	214,378,468
Cotton Goods	45,014,419	113,765,537	210,950,383
Clothing, Men's	45,940,353	131,363,282	209,548,460
Boots and Shoes	50,995,144	114,966,575	196,920,481
Sugar and Molasses, Refined	2,875,032	141,698,499	155,484,915
Leather, Tanned	9,204,243	85,949,207	113,348,336
Liquors, Malt	12,198,053	56,836,500	101,058,385
Carpentering	24,582,077	51,621,120	94,152,139
Printing and Publishing	30,531,657	32,460,305	90,780,341
Furniture	23,695,080	35,866,206	77,845,725
Leather, Curried	4,845,413	59,306,509	71,351,297
Agricultural Implements	15,359,610	31,531,170	68,640,486
Mixed Textiles	13,316,753	37,227,741	66,221,703
Bread and other Bakery Products	9,411,328	42,612,027	65,824,896
Carriages and Wagons	18,988 615	30,597,186	64,951,617
Tobacco, Cigars, etc.	18,464,562	29,577,833	63,979,575
Paper	8,525,355	39,951,207	55,109,914
Tobacco, Chewing, Smoking and Snuff	6,419,024	34,397,072	52,793,056
Tin ware, Copper ware and Sheet-iron ware	10,722,974	25,232,281	48,096,038
Blacksmithing	11,126,001	14,572,363	43,774,271
Liquors, Distilled	2,663,967	27,744,245	41,063 663
Silk and Silk Goods	9,140,705	22,467,701	41,033,045

The remarkable concentration of the manufacturing interests of the United States in the extreme northeastern portion of the country will be evident from the above table. New England, New York, New Jersey, and Pennsylvania, embracing only a little over one-twentieth of the area of the whole country, produce six-tenths of the total gross product of its manufactures. Similar conditions are shown in contrasting the northern with the southern sections of the country. The North Atlantic and North Central divisions, with thirty-one per cent of the total area, furnish over eighty-eight per cent. of the gross product. The Western or Cordilleran region, with nearly forty per cent. of the total area of the country, furnishes only a little over two and a half per cent. of its manufactures.

The Census Report of 1882 gives a great mass of statistics in reference to the manufacture of cotton in the country, from which the following are selected as representing the most essential features of this extremely important business:—

Number of spindles	10,653,435
Number of looms	225,759
Bales of cotton consumed	1,570,344
Number of persons employed	172,544
Wages paid	$42,040,510

These are said to be the final figures of the specific manufacture of cotton yarn and woolen fabrics, including some cotton hosiery; and by the term "specific" is meant cotton "worked into a fabric known and sold under that name."

Including the cotton used in mixed goods and upholstery, the total consumption is estimated at 1,760,000 bales. The total number of operatives employed, including those engaged in print and dye works and bleacheries, and also in manufacturing special fabrics in which cotton forms a part, is 198,338. The operatives employed in the specific cotton mills are thus classed as to age and sex:—

Men	59,685
Boys	15,107
Women	84,539
Girls	13,213
Total	172,544

The average wages earned in the cotton mills amount, for 300 days in the year, to 81 cents per day. Since 1840 the hours of labor have been reduced from 13 or 14 to 10 or 11, and the average earnings per hour are now more than double what they were at that time.

The manufacture of cotton is carried in nearly all the Atlantic, Central, and Southern States, but is principally developed in and near Massachusetts. This State alone consumed considerably more cotton in 1880 than all the other States outside of New England. Of 1,570,344 bales consumed in "specific" cotton manufacture in the country, in 1880, 1,129,498 were taken by New England. Massachusetts and Rhode Island, having together about ten thousand square miles of area, consumed 742,337 bales, or nearly half the whole consumption of the United States.

Some cotton cloth is still made by hand in the mountainous sections of the South, some two or three hundred thousand persons

being supplied in this way. As a measure of their work, it is said by Mr. Atkinson, Special Agent of the Census in charge of the subject of Cotton, that "two carders, two spinners, and one weaver could produce eight yards of coarse cotton cloth in a day of ten hours." To this he adds: "Of the whole force engaged in the specific cotton manufactures, about 160,000 are employed on goods for home consumption. It would take 16,00,000 to make the same number of yards by hand-work, and the cloth would be of a far different kind—more durable, it is true, but coarse and unsightly."

The following table will furnish the necessary data for an understanding of the importance of the petroleum business in the United States:—

Year ending June 30.	Production in Barrels of 42 Gallons.	Exports, in gallons.			Total Value of Exports.
		Illuminating Oil.	Crude Oil,	Total.	
1864	2,478,709	12,791,518	9,980,654	23,210,369	$10,782,689
1865	2,424,905	12,722,005	12,293,897	25,496,849	16,563,413
1866	3,165,700	34,255,921	16,057,943	50,987,341	24,830,887
1867	3,591,900	62,686,657	7,344,248	70,255,481	24,407,642
1868	3,613,709	67,909,961	10,029,659	79,456,888	21,810,676
1869	4,046,558	84,403,492	13,425,566	100,636,684	31,127,433
1870	4,411,016	97,902,505	10,403,314	113,735,294	32,668,960
1871	5,558,775	132,608,955	9,859,038	149,892,691	36,894,810
1872	5,842,497	122,539,575	13,559,768	145,171,583	34,058,390
1873	7,242,343	158,102,414	18,439,407	187,815,187	42,050,756
1874	11,188,741	217,220,504	17,776,419	247,806,483	41,245,815
1875	10,083,828	191,551,933	14,718,114	221,955,308	30,078,568
1876	8,823,142	204,814,673	20,520,397	243,660,152	32,915,786
1877	10,822,871	262,441,844	26,819,202	309,198,914	61,789,438
1878	14,738,262	289,214,541	26,936,727	338,841,303	46,574,974
1879	16,917,606	331,586,442	25,874,488	378,310,010	40,305,249
1880	22,382,509	367,325,823	28,297,997	423,964,699	36,218,625
1881	25,805,363	332,283,045	39,984,844	397,660,262	40,315,609
1882	28,650,181	488,213,033	41,304,997	559,954,590	51,232,706
1883	26,662,808	419,821,081	52,712,3[illegible]6	5[illegible]5,931,622	44,913,079
1884	23,744,924	415,615,693	67,186,329	513,660,092	47,103,248
1885	21,750,619	458,243,192	81,037,992	574,628,180	50,257,947
1886	22,463,744	469,471,451	80,246,763	577,781,752	50,199,844
1887	25,816,000	480,845,811	76,062,875	592,803,267	46,824,933
1888	28,249,597	456,417,221	85,538,725	578,351,638	47,042,409

Industries. The relation of materials to product, in the statistics of industry, needs to be carefully borne in mind; and for the purpose of throwing light on this subject, the Census Report of 1880, in the volume devoted to manufactures (published in 1883) groups the manufacturing and mechanical industries into four classes, as follows: I. Those industries in which the subject-matter is of a distinct and immediate commercial value, but the property does not reside in the person who treats it; II. Those industries in which the entire value of the subject-matter is carried into the value of "materials," and appears again in the product, enhanced by the value of labor, use of capital, rent, freight, etc., but in which the value is small compared to the cost of labor; III. Industries which are otherwise under the same conditions as those of the second class, but in which the value of the materials approaches, or even moderately exceeds, the value of the labor employed, and becomes thus an important element in the final value of the product, enhancing the apparent production of the industry in a high degree; and IV. Industries in which the value of the materials far exceeds all other elements in the cost of production combined, although, in fact, comparatively little value has been added by these operations, and only a small number of artisans or laborers supported. The following table is intended to illustrate the relation of materials to product, indicated above:—

RELATIONS OF WAGES AND MATERIALS TO PRODUCTS IN MANUFACTURING AND MECHANICAL INDUSTRIES.*

Class.	Number of Hands Employed.	Amount paid in Wages.	Value of Materials.	Value of Products.	Excess of Products over Materials.	Excess of Products over Wages and Materials.	Wages in $100 of Products.	Materials in $100 of Products.	Wages and Materials in $100 of Products.	Product, per capita, gross.	Product, per capita, deducting Materials.
1880.											
I.	123,767	$46,972,802	$64,875,494	$164,523,518	$99,648,024	$52,075,222	$28.55	$39.43	$67.98	$1,329.08	$804.99
II.	240,365	91,618,876	86,007,672	252,180,128	166,172,456	74,553,580	36.33	34.10	70.43	1,049.15	691.33
III.	2,254,204	768,628,877	2,227,225,626	3,796,006,063	1,568,780,427	800,151,550	20.25	58.67	78.92	1,683.96	696.93
IV.	114,239	40,783,240	1,018,714,747	1,156,869,482	138,154,735	97,421,495	3.52	88.05	91.57	10,120.74	1,209.34
Total	2,732,595	$947,953,795	$3,396,823,549	$5,369,579,191	$1,972,755,642	$1,024,801,847	$17.65	$63.26	$80.91	$1,965.01	$721.93
1870.†											
I.	110,504	$35,689,883	$67,850,482	$154,092,177	$86,841,695	$51,151,812	$23.67	$43.86	$66.93	$1,400.00	$785.87
II.	380,112	160,543,329	172,617,561	503,281,090	330,664,129	170,120,800	31.89	54.30	86.19	1,324.03	869.91
III.	1,420,345	535,293,694	1,483,951,729	2,636,790,545	1,152,838,816	617,515,122	20.30	56.28	76.58	1,856.44	811.66
IV.	98,778	30,769,841	492,676,576	822,792,139	130,115,563	99,345,722	3.74	84.18	87.92	8,329.71	1,317.25
Total	2,009,739	$762,296,747	$2,417,096,348	$4,117,556,951	$1,700,460,203	$938,163,456	$18.51	$58.70	$77.21	$2,048.80	$846.11

* All the industries tabulated were assigned entire to one class or another, according to the principles indicated in the text. The lines of division taken for the second, third, and fourth classes were: (1) where the value of the materials is less than two-fifths of that of the ultimate product; (2) where the value of the materials is from two-fifths to four-fifths of that of the ultimate product; and (3) where the value of the materials is over four-fifths of that of the ultimate product.

† In this table the same groups of industries in 1870 are compared with each other. The table differs from that contained in the volume on Manufactures of the Ninth Census and in the Compendium of that census in this, that the mining and fishing interests, and the statistics of a few industries which form the subject of special reports in the census of 1880 are, for purposes of comparison, excluded herefrom.

VALUES IN DOLLARS OF THE PRODUCTS OF DOMESTIC AGRICULTURE EXPORTED FROM THE UNITED STATES FOR THE YEARS 1886, 1887 AND 1888.

	1886.	1887.	1888.
Animals	12,518,660	10,598,362	12,885,000
Animal Oils	718,654	810,670	924,136
Provisions, including Meat and Dairy Products	90,625,216	92,783,296	93,058,705
Breadstuffs	125,846,558	165,708,662	127,191,687
Fruits	3,308,308	2,669,965	3,510,208
Seeds	1,949,990	1,907,499	1,516,690
Textiles, Unmanufactured	205,561,916	206,300,059	223,022,132
Vegetable Oils and Oil-cake	9,255,170	9,011,451	8,458,608
Tobacco Leaf	27,158,457	25,948,277	21,936,084
All Other Agricultural Products	8,011,666	7,275,647	8,356,746
Total Value of Agricultural Products	484,954,595	523,073,798	500,840,086
Total Value of all Exports of Domestic Merchandise	665,964,852	703,022,923	683,862,104
Percentage Value of Agricultural Products	73 82	74 40	73 23

From a comparison of the facts given in the various tables herewith presented, it will be evident that, with the exception of those items called "manufactures" in the Census Reports which are not properly manufactures, but the conversion of articles of food into a more suitable and convenient form for shipment to foreign countries—as, for instance, slaughtering of animals, and grinding and packing of wheat in barrels—the manufactures of the United States are intended and used for home consumption. The amount of these exported is very small as compared with the total of the exports. There is no one manufactured article of which the United States has anything like a monopoly abroad, or which greatly predominates in importance as an article of export over any other article.

The following data, compiled from the reports of the Bureau of Statistics, will give a sufficiently complete and comprehensive view of the nature of the imports into the United States.

The imported articles, including those admitted free of duty and the dutiable, are thus classified:—

A. *Articles of food and live animals.* B. *Articles in a crude condition which enter into the various processes of domestic industry.* C. *Articles wholly or partially manufactured for use, as materials in the manufactures and mechanic arts.* D. *Articles manufactured ready for consumption.* E. *Articles of voluntary use, luxuries, etc.* The following table gives the amount in value of each of these classes imported during the years 1884 and 1885, and the average for the five years (1881-85); also the ad valorem rate of duty on the dutiable articles of each class, and the percentage relation of the ad valorem duty to the entire duty collected:—

Year.	1884 and 1885.				Average of Years 1881-85.			
	Free of Duty.	Dutiable.	Ad Valorem Rate on Dutiable.	Per Cent. of Total. Duty.	Free of Duty.	Dutiable.	Ad Valorem Rate on Dutiable.	Per Cent. of Total. Duty.
1884 A.	$92,589,286	$132,136,969	44 75	31.15	$86,851,618	$130,072,238	44 90	29 47
1885	86,559,991	107,706,369	57.28	34.79	86,066,234	129,907,732	46.41	30.57
1884 B.	94,039,567	44,457,174	26.82	6.28	97,895,975	54,358,668	29.96	8.21
1885	82,507,747	37,101,595	25.48	5.33	95,001,401	49,163,935	28.57	7.12
1884 C.	12,186,427	69,774,216	26.48	9.73	11,719,623	66,492,197	29 42	9.87
1885	11,185,487	61,045,053	27.88	9.61	11,850,883	66,169,652	29.01	9.73
1884 D.	11,035,112	123,205,489	47.54	30.86	10,207,857	135,602,292	47 22	37.31
1885	10,617,405	108,636,576	48.28	29.58	10,504,966	133,155,050	47.52	32.08
1884 E.	1,429,873	86,721,276	48.12	21.98	1,199,322	78,128,835	51.09	20.14
1885	2,041,604	72,178,227	50.84	20.69	1,453,551	79,690,207	50.69	20.49
Total 1884	$211,280,265	$456,195,194	av. 41.61	100.00	$207,904,425	$464,634,230	av. 42.06	100.00
" 1885	192,912,234	386,667,820	45.90	100.00	204,877,035	458,086,576	43.05	100.00

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